CURTIS'S

BOTANICAL MAGAZINE,

COMPRISING THE

Plants of the Royal Gardens of Kew

AND

OF OTHER BOTANICAL ESTABLISHMENTS IN GREAT BRITAIN;

WITH SUITABLE DESCRIPTIONS;

BY

SIR WILLIAM JACKSON HOOKER, K.H., D.C.L. Oxon.,

F.L.S., CORRESPONDING MEMBER OF THE ACADEMY OF SCIENCES OF THE IMPERIAL INSTITUTE OF FRANCE, AND DIRECTOR OF THE ROYAL GARDENS OF KEW.

VOL. XX.

OF THE THIRD SERIES;

(Or Vol. XC. of the Whole Work.)

"My *Garden* painted o'er
With Nature's hand, not Art's."

Mo. Bot. Garden
1897.

LONDON:

LOVELL REEVE & CO., HENRIETTA STREET, COVENT GARDEN.

1864.

SHOUT IT
SHARE

JOHN EDWARD TAYLOR, PRINTER,
LITTLE QUEEN STREET, LINCOLN'S INN FIELDS.

TO

DR. FREDERICK WELWITSCH, M.D., A.L.S.,

THE DISTINGUISHED TRAVELLER AND BOTANICAL EXPLORER

IN THE PORTUGUESE POSSESSIONS OF TROPICAL WESTERN AFRICA,

The present Volume is Dedicated,

WITH SINCERE REGARD,

BY

THE AUTHOR.

Royal Gardens, Kew,
Dec. 1, 1864.

1

3

4

W. Fitch, del. et lith.

Vincent Brooks, Imp.

TAB. 5420.

ARISTOLOCHIA LEUCONEURA.

Pale-veined Tree-Aristolochia.

Nat. Ord. ARISTOLOCHIEÆ.—GYNANDRIA HEXANDRIA.

Gen. Char. (*Vide supra*, TAB. 5295.)

ARISTOLOCHIA *leuconeura;* subarborescens elongata scandens ramosa, trunco inferne diametro bipollicari et ultra suberoso rugoso, foliis longe petiolatis subcarnoso-coriaceis cordatis acute acuminatis 7-nerviis basi profunde bilobis glabris, pedunculis flexuosis fasciculatis e basi trunci egredientibus unifloris, perianthio subinfundibuliformi subcoriaceo-carnoso curvato, inferne valde inflato, limbo amplo oblique unilabiato atro-purpureo pulcherrime flavo-lineato punctatoque, stigmate profunde 6-lobo lobis ovatis apice unguiculatis patenti-incurvis.

ARISTOLOCHIA leuconeura. *Linden, Cat. n.* 13. *p.* 2.

This is a very fine species of *Aristolochia*, evidently belonging to the same natural group or section as the *Aristolochia arborea*, Linden, figured at Tab. 5295 of this work; derived, too, from the same country, New Granada, and introduced into Europe by the same distinguished horticulturist, Mr. Linden, through Mr. Triana, who detected it on the Magdalena, between Honda and Magdalena. As a species, however, it is totally distinct from the one just mentioned, not only in the foliage, but in the organization and internal structure of the flower. The singular blossoms are produced in our stove in September.

DESCR. *Stem* quite woody, almost arborescent, rough and corky on the outside, two or more inches in diameter, in our young plant twelve feet long, scandent, branched. Young *branches* terete, herbaceous. *Leaves* a span or more long, carnoso-coriaceous, cordate, deeply two-lobed at the base, with a very obtuse sinus, sharply and rather suddenly acuminate, glabrous, seven-nerved; *nerves* very thick and pale-coloured, on a full green ground. *Petiole* three to four inches long, terete, often twisted, subamplexicaul, but scarcely stipuled. *Flowers* produced in a cluster from the lower part of the old trunk, and near the base, peduncled. *Peduncles* short, single-flowered.

JANUARY 1ST, 1864.

Ovary elongated, club-shaped, terete, six-furrowed. *Perianth* two and a half inches long, following its curvature, dark-chocolate purple-coloured, set on as it were on one side of the apex of the ovary, so as to stand out at right angles from it; the *tube* infundibuliform (internally lined with subulate deflexed hairs), much inflated at the base; the *limb* oblique, one-lipped, ovate, large and spreading, apiculate, the whole upper side beautifully marked with pale yellow, often forked lines, radiating from the mouth of the tube. *Anthers* oblong, attached one to the base of each of the six large, patenti-inflexed, unguiculate lobes of the *stigma*.

Fig. 1. Apex of the inferior ovary, and section of the base of the tube of the perianth. 2. One of the hairs from the interior of the tube. 3. Stigma and anthers. Transverse section of the germen:—*magnified*.

2.

3.

1.

4.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5421.

PELARGONIUM Bowkeri.

Mr. Bowker's Pelargonium.

Nat. Ord. Geraniaceæ.—Monadelphia Decandria.

Gen. Char. Flores irregulares. *Sepala* 5, imbricata, basi connata, posticum in calcar pedicello adnatum productum. *Petala* 5, v. abortu pauciora, leviter perigyna, imbricata, 2 superiora exteriora inferioribus dissimilia, ad latera calcaris v. pone illum inserta. *Glandulæ disci* nullæ. *Stamina* 10, hypogyna, basi connata, obliqua, 7 v. rarius 2–6 antherifera, cetera ananthera v. rudimentaria. *Ovarium* 5-lobum, 5-loculare, rostratum, rostro in *stylum* abeunte, ramis 5 linearibus introrsum stigmatosis. *Ovula* in loculis 2, ab angulo interno pendula, superposita v. fere collateralia. *Capsulæ* lobi 5, 1-spermi, ab axi placentifero septifrage dehiscentes, caudis a basi ad apicem elastice revolutis. *Semina* exalbuminosa; *radicula* supera in *cotyledones* planas v. flexuoso-plicatas incumbens.—Herbæ *suffrutices v. frutices, glabræ vel pubescentes, sæpe viscoso-odoratæ, nunc carnosæ.* Folia *opposita v. rarius alterna, integra, dentata, lobata v. varie dissecta, stipulata.* Pedunculi *axillares, oppositifolii, alares v. radicales, umbellatim 2–∞-flori, vel rarius* 1*-flori. Benth. and Hook.*

Pelargonium (§ Polyactium) *Bowkeri;* radice nodoso-tuberosa, caule brevi carnoso, foliis subradicalibus petiolatis bi–tri-pinnatipartitis, pinnis in rachide valde elongato suboppositis alternisve numerosis, pinnulis linearifiliformibus integerrimis tenuiter adpresse pubescentibus; stipulis lanceolatis acuminatis, scapo foliis longiori patentim puberulo, umbella multiflora, pedicellis bracteas oblongas villosas parum superantibus, petalis profunde bilobis, lobis fimbriato-multifidis.

Pelargonium Bowkeri. *Harv. Fl. Cap. Suppl. v.* 2. *p.* 592; *and Thesaur. Cap. v.* 2. *p.* 14. *t.* 121.

Our first knowledge of this very interesting species of *Pelargonium* is through Dr. Harvey's valuable Flora of the Cape Colony, Caffraria, and Port Natal; and it was soon after figured in the 'Thesaurus Capensis.' It is a native of Trans-Kei country, of rare occurrence, detected by H. Bowker, Esq., who, together with Mrs. Bowker, are eminent contributors towards the perfection of the South African flora. Nearly about the same time it was collected by Mr. Cooper, then collector for W. Wilson Saunders, Esq., from whom we received the plant here figured.

January 1st, 1864.

Dr. Harvey speaks of it as a very handsome species, with the flowers of *P. schizopetalum*, *Amatymbicum*, and *Caffrum*, but differing from all these remarkably in foliage. It certainly is a graceful and elegant plant, both as to foliage and in the structure of the flowers; but there is an absence of brilliant colour in the latter, which renders so many other Cape *Pelargonia* attractive to cultivators.

Descr. *Tubers* large, oblong or egg-shaped or subrotund, solitary, or produced two to three, one above the other. *Stem* very short. *Leaves* subradical, with lanceolate *scales* or *stipules*, compoundly pinnate, slightly patenti-subsericeous, the *segments* or *pinnæ* linear acute. *Petioles* and main *rachis* terete, patenti-pilose. *Scape* a foot or more high, terete, patenti-pilose. *Flowers* in a rather large, spreading, terminal *umbel*, bracteated at the base of the pedicels, of a yellowish colour, tinged with purple. *Calyx* with the *sepals* reflexed. Two upper *petals* oblong, laciniated or fringed chiefly at the apex, three lower ones cuneate, much more deeply and compoundly laciniated.

Fig. 1. Calyx and pistil. 2. One of the upper petals. 3. One of the lower petals:—*all magnified.*

W. Fitch, del. et lith.

Vincent Brooks Imp

Tab. 5422.

SCHIZOSTYLIS coccinea.

Crimson Schizostylis.

Nat. Ord. Irideæ.—Triandria Monogynia.

Gen. Char. Schizostylis, *Backh. and Harv.*—*Flores* spicati, bibracteati; *bracteis* herbaceis integris, apice vix sphacelatis. *Perigonium* coralinum, superne hypocrateriforme, tubo gracili, limbi laciniis æqualibus patentibus. *Stamina* 3, fauce perigonii inserta; *filamenta* subulata; *antheræ* versatiles, basi bilobæ. *Ovarium* oblongum, 3-loculare; *ovula* plurima, biseriata. *Stylus* filiformis, profunde trifidus; *stigmata* subulata, erecto-patentia, apice incurva, integerrima. *Capsula* oblonga, teretiuscula; *semina* (immatura) plurima, obtuse angulata, imarginata. *W. H. Harvey, ms.*

Schizostylis *coccinea.*

Schizostylis coccinea. *Backh. and Harvey, ms.*

The specimen of this lovely Iridaceous plant, here represented, was sent to us by Messrs. Backhouse and Son, from their Nursery at York, in November of the present year, 1863, with the information that it inhabits eastern rivers of South Africa, called Kabousie and Keir-kamma, in Kaffirland. Subsequently, Dr. Harvey has informed me that he possesses specimens of the same plant, gathered by Cooper (n. 1197 of his distributed collection), near Drackensberg Mountain; and also from Mr. D'Urban (n. 110), who found it by the Kabousie river, in British Caffraria, in both cases growing very near water. Again, Dr. Harvey has detected it in Mr. Sanderson's collections from Natal; and in Mr. Hutton's from the Katberg, altitude 3000 feet, who speaks of it as a "beautiful *pink Hesperantha*," showing its affinity in his eyes to that genus, to which Mr. Backhouse also detected a resemblance. These specimens, besides having paler flowers than our figure represents, have occasionally also the lobes of the perianth more obtuse.

Descr. The root, which I have not seen, is described by

Mr. Backhouse as "likely to form a *corm* or *bulb-tuber* at the base of the stem, and at the extremity of the runners (like *Tritonia rosea*), though at present there is no clear bulb formed." The *plant* attains the height of three feet, with long, sheathing, sword-shaped, carinated *leaves*, the longest arising from the base. Upwards they gradually form *bracts*, and constitute a distichous *spike*, from which the *flowers* (ten to fourteen) gradually emerge, opening in succession from below upwards. *Tube* of the *perianth* shorter than the bracts; *limb* measuring two inches across, of six spreading, uniform, ovate-oblong, very acute, bright crimson *lobes*. *Stamens* three, inserted at the summit of the tube. *Anthers* sagittate, yellow. *Ovary* inferior, subtriangular. *Style* filiform, divided nearly halfway down into three slender branches. *Stigmas* obtuse.

Fig. 1. Stamen. 2. Pistil. 3. Transverse section of the ovary:—*magnified*.

1

3

2

W.Fitch,del.et lith

Vincent Brooks,Imp

Tab. 5423.

MIMULUS REPENS.

Creeping Monkey-flower.

Nat. Ord. Scrophulariaceæ.—Didynamia Gymnospermia.

Gen. Char. Calyx tubulosus, 5-angulatus, 5-dentatus. *Corollæ labium* superius erectum vel reflexo-patens bilobum, inferne patens trilobum intus ad faucem sæpius bigibbosum, laciniis omnibus rotundatis planis. *Stamina* fertilia 4. *Antherarum loculi* deorsum subconfluentes. *Stylus* apice bilamellatus, laciniis subovatis subæqualibus. *Capsula* vix sulcata, bivalvis, loculicide dehiscens; *valvulis* integris raro bifidis, medio septiferis, columnam centralem placentiferam integram vel bifidam nudantibus.—Herbæ *extra-Europeæ, decumbentes vel erectæ.* Folia *opposita.* Pedunculi *axillares, solitarii, uniflori, superiores interdum ad apices ramorum opposite racemosi. Benth. in De Cand.*

Mimulus *repens;* repens, foliis sessilibus vel amplexicaulibus ovatis oblongisve obtusis, pedunculis folio parum longioribus, calycibus ovatis truncatis brevissime dentatis. *Benth.*

Mimulus repens. *Br. Prodr. Fl. Nov. Holl. p.* 439. *Benth. in De Cand. Prodr. p.* 373. *Hook. Fil. Fl. Nov. Zel. v.* 1. *p.* 188. *Ejusd. Fl. Tasman. v.* 1. *p.* 290.

Twenty-nine species of the genus *Mimulus* are enumerated by Mr. Bentham, of which the majority are natives of North America, chiefly on the Pacific side, and with many of these we are familiar in our gardens. Three inhabit India, one Madagascar, one the Cape, two tropical and two extra-tropical Australia. The last-mentioned are remarkable in being prostrate or creeping, and necessarily include the present species, which was discovered by Mr. Brown, at Port Jackson; but it extends to Victoria (whence seeds were sent to us by Dr. Mueller, in 1862), and is probably frequent in the more temperate regions of Australia, appearing again in Tasmania; and Dr. Hooker speaks of it as common "in saline situations, and muddy banks of rivers, etc., in New Zealand." It is now, we believe, first cultivated in Europe, and we are glad to give a figure of so very pretty a species. Mr. Bentham well observes, "Habitu *Herpe-*

stidi Monnieriæ simillimus;" but the flowers are much larger and handsomer. We have hitherto kept it in the greenhouse, where it flowers copiously; but in all probability a common frame would suffice for its winter protection, and the open air in summer.

Descr. Herbaceous, perennial, branching copiously from a central root, everywhere prostrate and rooting, quite glabrous and subsucculent; *branches* four-angled. *Leaves* opposite, sessile, varying from orbicular to oblong, quite entire in our plant at the margin, one-nerved (no evident lateral veins). *Peduncles* longer than the leaves, opposite, axillary, solitary, one-flowered. *Calyx* rather small in proportion to the size of the corolla, subcampanulate, five-angled, five-toothed; *teeth* short, erect, with a rounded, short, crenate lobe between the teeth. *Corolla* rather bright lilac, paler on the lower lip, dotted with deep yellow in the faux (and there bigibbous and pubescent); *tube* infundibuliform, longer than the calyx; *limb* very large and spreading, two-lipped, upper two-, lower lip- three-lobed; *lobes* large, obtuse, or retuse. *Stamens* and *style* included. *Ovary* ovate. *Style* filiform. *Stigma* two-lipped.

Fig. 1. Corolla laid open. 2. Calyx and pistil. 3. Pistil removed from the calyx:—*magnified.*

2

1

3

4

W.Fitch, del et lith.

Vincent Brooks, Imp

Tab. 5424.

SOLANUM ANTHROPOPHAGORUM.

Cannibals' Solanum or Boro dina.

Nat. Ord. Solanaceæ.—Pentandria Monogynia.

Gen. Char. Calyx 5-(rarius 4–6–10)-partitus -fidus -dentatus -crenatusve, atque etiam integer, regularis vel rarius subirregularis. *Corolla* rotata, cupularis vel patellaris, *tubo* brevi, *limbo* plicato 5-(rarius 4 v. 6)-fido -partito vel -angulari. *Stamina* 5, rarius 4 vel 6, corollæ fauci adnata, plerumque exserta; *filamenta* brevissima, æqualia vel rarius inæqualia. *Antheræ* liberæ, apice poris geminis dehiscentes, conniventes, rarissime connatæ, æquales vel interdum inæquales, *loculis* lateralibus connectivo non conspicuo adnatis. *Ovarium* bi-(rarius 3–4)-loculare, placentis dissepimento insertis adnatis multiovulatis. *Stylus* subsimplex. *Stigma* obtusum. *Bacca* 2-(rarius 3–4)-locularis. *Semina* plurima, subreniformia, compressa. *Embryo* periphericus, spiralis, *albumen* carnosum includens. *Dunal, in De Cand.*

Solanum *anthropophagorum;* fruticosum, ramis herbaceis teretibus erectis, foliis glabris ovatis acuminatis integerrimis vel (inferioribus) margine angulato-lobatis longe petiolatis, pedunculis petiolo brevioribus extra-axillaribus solitariis apice subcomposite racemosis, pedicellis paucis gracilibus cernuis, floribus parvis, calyce tubo brevi subhemisphærico conspicue 5-gibboso, limbo 5-lobo, lobis triangulari-ovatis acuminatis, corolla (alba) rotata pubescente, fructu magnitudine *Citri Limetta* globoso obscure 2-lobo apice mammillato.

Solanum anthropophagorum. *Seem. in Bonplandia*, 1862. *p.* 294. *t.* 14.

The 'Correspondence relative to the Fiji Islands,' presented to both Houses of Parliament by command of Her Majesty in May, 1862, is accompanied by an interesting Appendix, being a Report, by Dr. Seemann, on the "Vegetable Productions and Resources of the Vitian or Fijian Islands," in which a chapter at page 58 is devoted to "*Vegetables eaten with human flesh;*" from which I make the following extract:—"*These* it may be important to notice; since, thanks to the influence of commerce, Christian teaching, and the presence of a British consul, cannibalism survives only in a few localities, and is daily becoming more and more a matter of history. Human flesh, Fijians have repeatedly

assured me, is extremely difficult to digest, and even the healthiest suffer for two or three days after partaking of it. Probably in order to assist the process of digestion, *bokola*, as dead man's flesh is technically termed, is always eaten with the addition of vegetables. There are principally three kinds, which in Fijian estimation ought to accompany bokola,—the leaves of Malawari (*Trophis anthropophagorum*, Seem.), the Tudano (*Omalanthus pedicellatus*, Benth.), and the *Boro dina* (*Solanum anthropophagorum*, Seem.). The two former are middle-sized trees, growing wild in many parts of the group, but the *Boro dina* is cultivated, and there are generally several large bushes near every 'bure' (or strangers' house) where the bodies of those slain in battle are always taken. The Boro dina is a bushy shrub, seldom higher than six feet, with a dark glossy foliage, and berries of the shape and colour of tomatoes. This fruit has a faint aromatic smell, and is occasionally prepared like tomato sauce. The leaves of these three plants are wrapped round the bokola, as those of the Taro are around pork, and baked with it on heated stones. Salt is not forgotten. Whilst every other kind of vegetable and meat are eaten with the fingers, cannibal food is touched only with forks, generally made of the wood of the Nokonoko (*Casuarina equisetifolia*) or the Vesi (*Afzelia bijuga*, A. Gray), bearing curious names, and having three to four long prongs. The reason given for this deviation from the general mode of eating is a widespread belief that fingers which have touched bokola are apt to generate cutaneous diseases when coming in contact with the tender skin of children, and as the Fijians are very fond of their offspring, they are most scrupulous in using forks on the above occasions."

The *Boro dina* above mentioned is the subject of our present Plate. Our plants were reared from seed brought home by Dr. Seemann, and which flowered in the stove of the Royal Gardens in July. Except when in fruit, this species of *Solanum* has no beauty to recommend it for cultivation: it is only interesting historically as connected with a practice which is happily yearly becoming more and more obsolete.

Fig. 1. Calyx, including the pistil. 2. Corolla laid open, with stamens and pistil,—*magnified*. 3. Fruits,—*nat. size*. 4. Transverse section of a fruit,—*nat. size*.

W. Fitch del. et lith.

Vincent Brooks, Imp.

Tab. 5425.

FORRESTIA HISPIDA.

Hairy-sheathed Forrestia.

Nat. Ord. Commelinaceæ.—Hexandria Monogynia.

Gen. Char. Sepala 6, ima basi connata, colorata; *tria exteriora* erecta, oblonga, acuta; *tria interiora* angustiora, oblongo-subspathulata, acuta, plana, pellucida, caduca, in floribus unisexualibus nullis vel cito evanida. *Stamina* 6, hypogyna, *sepalis* opposita eorumque longitudine. *Filamenta* distincta, filiformia. *Antheræ* biloculares, subcordatæ, introrsæ, basi affixæ; *loculis* oppositis, secundum longitudinem dehiscentibus. *Ovarium* liberum, sessile, subovoideum, trigonum, superne villosum, triloculare; *ovula* in loculis bina, superposita. *Stylus* terminalis, gracilis, longitudine staminum, glaber. *Stigma* parvulum, obsolete trilobum. *Capsula* subcordato-triquetra, trilocularis, trivalvis; *valvis* medio septiferis. *Semina* in loculis 2, obsolete reniformia, medio lateraliter affixa (excentrice peltata, *Endl.*), externe convexa, interne margine revoluta et inæqualiter lobulata, concava. *Albumen* subcartilagineum, densum, album. *Embryo* —— ? —Herba *erecta, bipedalis, simplex.* Folia *vaginantia, elliptico-oblonga, nervoso-striata, glabra, basi angustata et supra vaginam quasi petiolata;* vaginis *integris, hispido-lanuginosis.* Flores *rubri, supra vaginam exserti, dense capitati, hermaphroditi vel abortu unisexuales,* bracteis *interstincti. Less. et Rich.*

Forrestia *hispida*, *Less. et A. Rich. in Voy. de l'Astrolabe, v.* 2. *p.* 2. *t.* 1. *Kunth, Enum. Plant. v.* 4. *p.* 116. *Miq. Fl. Ned. Ind. v.* 3. *p.* 547.

Campelia marginata. *Bl. Enum. Pl. Jav. v.* 1. *p.* 7. *Wall. Cat. n.* 3977 (*not* Campelia *of Rich.*). *Probably* C. mollissima, *Bl., and of Miq. Fl. Ned. Ind. v.* 1. *Suppl. p.* 609.

Amischotolype marginata, *Hassk., and* A. glabrata, *Hassk. in Regensb. Fl.* 1863, *n.* 23. *p.* 392, *belong here also.*

Pollia purpurea. *Hort. Bull.* (*certainly not* Pollia *of Thunb.*)

Our first knowledge of this really handsome stove-plant was derived from Mr. Bull, Nursery, Chelsea, who presented us with a living plant, but (a subject of which we have often to complain) without giving any clue to the period of its introduction, through what channel, or what its native country; simply accompanied by the name of "*Pollia purpurea.*" It may be so

Vincent Brooks, Imp.

Tab. 5426.

IPOMŒA filicaulis.

Slender-stalked Ipomœa.

Nat. Ord. Convolvulaceæ.—Pentandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5330.)

Ipomœa (§ Orthipomæa) *filicaulis;* caule elongato raro subvolubili filiformi anguloso, foliis linearibus aut lineari-lanceolatis brevissime petiolatis basi subhastato-denticulatis glaberrimis, pedunculis folio longioribus 1–2-floris, pedicellis clavatis, sepalis acutis ovato-acuminatis æqualibus 3 lineas longis, corolla albo-lutea. *Chois.*

Ipomœa filicaulis. *Bl. Bijdr. p.* 721. *Chois. in De Cand. Prodr. v.* 9. *p.* 353.
Convolvulus filicaulis. *Vahl, Symb. v.* 3. *p.* 24.
Convolvulus hastatus. *Desv. non Sieb. nec Thunb.*
Convolvulus medium. *Lour. Ait. Wall., non Linn.* (*Chois.*)
Convolvulus filiformis. *Thunb.*
Convolvulus denticulatus. *Spreng.*
Convolvulus angustifolius. *Desr. Vahl.*
Convolvulus Japonicus? *Th. Fl. Jap. p.* 85.
Ipomœa denticulata. *Br. Prodr. Fl. Nov. Holl. p.* 485. *Lindl. Bot. Reg. p.* 317, *not Chois.*
Ipomœa angustifolia. *Jacq. Coll. v.* 2. *p.* 367. *Ic. Rar. t.* 317, *not Chois.*
Ipomœa Japonica? *Rœm. et Sch.*
Ipomœa Blumei. *Steud.*
Ipomœa bidentata. *Don.*
Convolvulus Blumei. *Dietr.*
Talu-Noli. *Rheede, Hort. Malab. v.* 11. *p.* 113. *t.* 35.

Of the above numerous synonyms brought under this species, we have verified what lay in our power; for the rest M. Choisy is responsible, though there is no reason to believe that he is otherwise than correct. It has certainly a widely extended locality, being considered to inhabit Asia (India and the Malay Archipelago, abundant, whence the seeds are often sent without name to Europe), Australia, Africa, and even the warmer parts

of the New World. Being an annual, however, it does not easily become established in our stoves: yet it is a graceful and an elegant plant, bearing a succession of the pretty dark-eyed cream-coloured flowers, with however scarcely a sufficient mass of foliage to set off the blossoms to much advantage.

Descr. *Stems* filiform, much branched, and varying greatly in length, rambling rather than climbing. *Leaves* alternate, two to three inches long, less than half an inch wide, glabrous, linear-oblong, acuminate, scarcely petioled: the base entire or two-lobed, so as then to be sagittate, or sometimes hastate, and toothed. *Peduncle* filiform, solitary, two to four inches long, generally longer than the leaf from the axils of which they spring, and for the most part bearing two *flowers*, with slender *pedicels*, the uppermost flower expanding first. *Sepals* acuminate. *Corolla* small, scarcely three-quarters of an inch broad, subinfundibuliformi-campanulate, white or cream-colour, with a bright purple eye in the throat. *Stamens* scarcely exserted. *Ovary* globose, seated on a fleshy *disk*. *Style* filiform; *stigma* large, two-lobed.

Fig. 1. Base of a leaf, with its short petiole. 2. Pistil:—*magnified*.

2.

1.

W. Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5427.

GLADIOLUS sericeo-villosus.

Shaggy-stemmed Cornflag.

Nat. Ord. Iridaceæ.—Triandria Monogynia.

Gen. Char. Perigonium corollinum, superum, irregulare, *tubo* teretiusculo, *limbi* sexpartiti bilabiati laciniis inæqualibus. *Stamina* 3, perigonii *tubo* inserta, erecta v. subsecunda, inclusa v. exserta; *filamenta* filiformia; *antheræ* lineares, dorso supra basin affixæ. *Ovarium* inferum, obtuse trigonum, triloculare. *Ovula* plurima, in loculorum angulo centrali pluriseriata, pendula, anatropa. *Stylus* filiformis; *stigmata* 3, petaloideo-dilatata. *Capsula* membranacea, trilocularis, loculicido-trivalvis. *Semina* plurima, pendula, compresso-plana, alata v. rarius globosa, subbaccata, testa laxa vel carnosa, *rhaphe* intra testam libera, valida. *Embryo* axilis, *albumine* carnoso parum brevior, *extremitate radiculari* umbilicum attingente, supera.—Herbæ *in Europa media et in regione Mediterranea rariores, in Capite Bonæ Spei copiosæ, multiformes;* radice *bulboso-tuberosa*, foliis *distichis equitantibus*, floribus *in spira simplici secundis, sæpius nutantibus*, spatha *bivalvi persistente. Endl.*

Gladiolus *sericeo-villosus;* elatus, caule spathisque sericeo-villosissimis, foliis bi-tripedalibus et ultra elongatis lineari-ensiformibus striatis, spica pedali et ultra multiflora, tubo corollæ spatham æquante, limbo campanulato subringente luteo-virescente rubro tincto, laciniis ovatis subuniformibus concavis superiore majore, staminibus subexsertis, styli ramis elongatis curvatis.

Communicated to the Royal Gardens of Kew by our valued friend W. Wilson Saunders, Esq., being one of the many novelties detected by his collector, Mr. Cooper, in the interior of the Cape Colony. It is quite unlike any of the numerous species of *Gladiolus* figured in botanical or horticultural works, and equally unlike any of the Cape species in our herbarium, and is a striking plant from its size, three to four feet high, the very long and densely-flowered spike, and the beautiful long, shaggy-silky clothing to the stem and spathes, while the rest of the plant is quite free from hairs. The colour of the flowers, too, is very peculiar, yellow-green, but tinged with pale-yellowish brown, more striking in the living plant than as seen from a coloured figure.

I do not venture to notice the affinities of the species of a

genus which has not come much under my observation; and I know it will receive due attention from the learned authors of the 'Flora Capensis,' when the mass of the species will come under their attention.

Fig. 1. Base of the tube of the corolla, with stamens and style,—*slightly magnified.* 2. Leaf,—*natural size.*

3.

2.

4.

W. Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5428.

TRICHANTHA MINOR.

Smaller-leaved Trichantha.

Nat. Ord. Gesneriaceæ.—Didynamia Angiospermia.

Gen. Char. Calyx inferus, coloratus, profunde quinquepartitus; *lobis* subpalmato-profunde-pinnatifidis, laciniis elongatis linearibus ciliatis. *Corolla* tubulosa, hinc subventricosa, crinito-hirsuta, supra basin constricta; *limbo* parvo, obliquo, 4-lobo, lobo superiore bifido; *lobis* cum appendiculis claviformibus paulo infra sinus clavatis, luteis, alternantibus, apice setoso-stellatis. *Stamina* 4, didynama, subinclusa; *antheris* per paria conniventibus. *Ovarium* superum, ovatum, hinc basi *glandula* hypogyna, magna. *Stylus* filiformis, longitudine staminum; *stigma* bifidum.—Frutices *scandentes, radicantes, Caricasani, epiphyti, pilosi.* Folia *subsucculenta, carnosa, ovata, seu obovata, opposita, unico multo minore.* Flores *hirsutissimi (pilis articulatis), axillares, aggregati, pulcherrime picti.* Pedunculi *uniflori, sursum curvati. Hook.*

Trichantha *minor;* foliis ovatis acuminatis integerrimis ciliatis supra demum glabriusculis, caule appresso-piloso vel glabro.

Trichantha minor. *Hook. Ic. Pl. t.* 666. *Walp. Repert. Bot. Syst. p.* 395. *Hanst. Conspect. Gesneriac. p.* 216. *t.* 2. *f.* 63.

This very remarkable and very beautiful plant, which, together with a closely allied species, constitute a new genus of *Gesneriaceæ*, has been hitherto only known in the herbarium, from specimens collected by William Lobb in Columbia, South America, and supplied to us by the late Mr. Veitch, of the Exeter Nursery, and they were both figured by us in the seventh volume of our 'Icones Plantarum.' To our great gratification, we received in November of the past year 1863, living specimens in full flower of one of the two species, *T. minor*, from the present Messrs. Veitch, of Exeter and Chelsea Nurseries; and beautiful as are many of the Gesneriaceous plants, long favourites in our stoves and greenhouses, none perhaps exceeds this in elegance of form and structure, and beauty of colour. These living plants were introduced through Mr. R. Pearce, the energetic collector for the Messrs. Veitch, in Tropical America.

February 1st, 1864.

The letter announcing it was dated from Guayaquil, 1861, and it was mentioned as "a charming little stove-climber, with flowers bearing a strong resemblance to spiders;" but no exact locality has been stated either by Mr. Pearce or by Mr. Lobb, which is much to be regretted.

Fig. 1. Flower, deprived of the corolla. 2. Corolla laid open. 3. Ovary and perigonal gland. 4. Transverse section of ovary :—*magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5429.

CANSCORA Parishii.

Parish's Canscora.

Nat. Ord. Gentianeæ.—Tetrandria Monogynia.

Gen. Char. Calyx tubulosus, 4-dentatus. *Corolla* nuda, demum sæpius decidua, labio superiore profunde bilobo basi triandro, inferiori emarginato, monandro; *stamine* inferiori longiori. *Antheræ* erectæ, immutatatæ, 3 superiores lineares filamento destitutæ; *suprema* lobis intermedia, laterales juxta et infra labium corollæ superius positæ; *inferior* subrotunda, minor; *filamento* suturæ loborum inserto brevior. *Ovarium* uniloculare; *ovulis* ad suturam insertis. *Stylus* distinctus, deciduus; *stigmate* bilamellato v. bigloboso aut indiviso, capitulato aut bicruri. *Capsula* bivalvis, septicida, subunilocularis, placentis spongiosis suturalibus. *Semina* placentis immersa, minuta.—Herbæ *annuæ, Indiæ orientalis, Africæque tropicæ orientalis.* Caulis *tetrapterus, ramosus, tener;* ramis *erecto-patentibus;* panicula *dichotoma, rarissime in spicam redacta.* Folia *trinervia, parva, latiuscula.* Flores *rosei vel albi, tenues;* calyce *cylindrico, appresso, corollæ tubum æquante. Griesb. in De Cand.*

Canscora *Parishii;* annua, glabra, caule erecto ramisque dichotomis teretibus, foliis omnibus orbiculari-perfoliatis obtusissimis vix mucronato-apiculatis glaucis, floribus solitariis axillaribus brevissime pedunculatis, calyce inflato-urceolato amplo lobis latis acutis erecto-patentibus, corolla (alba) tubo basi inflato, lobis obovatis subobliquis basi biocellatis, staminibus didynamis omnibus fertilibus.

A most interesting and perfectly new species of the Gentian family, *Canscora*, found by the Rev. C. S. P. Parish, on limestone rocks, at Moulmeine, and by Mr. Thomas Lobb, on the ruins of a pagoda, in the same country. In 1863, Mr. Parish sent to us seeds, as well as specimens: the former germinated readily, and being annual, and of tolerably rapid growth, the singular leaves and copious pure white flowers, yellowish in the centre, were quite an ornament to the house in the summer months. The species is very remarkable, in having perfectly terete stems and branches, and an equally terete calyx, in no way angled or winged. The leaves are throughout the plant completely connato-perfoliate into one exactly orbiculate leaf, with the stem

or branch, as it were, passing through the centre, and the veins all radiating from that point. In *Canscora perfoliata* of Linnæus, and in *C. grandiflora*, Wight (Pl. Ind. Or. t. 1326), the upper leaves are broad and perfoliate, the lower ones narrow and free, and in other respects are quite different from ours, and which cannot fail to remind the European botanist of our well-known *Chlora perfoliata*, while the larger and orbicular leaves, sometimes two to two-and-a-half inches in diameter, bring to recollection those of *Bupleurum rotundifolium*.

Descr. *Root* annual. *Plant* one to two feet high, erect, branched, mostly dichotomously so; *stem* and *branches* slender, quite terete, stramineous, lower ones sometimes opposite. *Leaves* copious, not only opposite, but perfectly connate, so that the united two apparently form one exactly orbicular leaf, with the stem or branch in the centre, the veins radiating from that point, glaucous; the apices very obtuse, but sometimes indicated by a minute point or mucro. *Flowers* almost as copious as are the leaves, solitary, axillary, very short petiolate, perhaps the largest of the genus. *Calyx* urceolate, ventricose, inflated, veined, quite destitute of angle or wing, four-lobed; lobes unequal, broad, acute. *Corolla* pure white; *tube* inflated below; *lobes* obovate, oblique, moderately unequal, tinged with yellow in the centre, and at the base of each are two small, deep, yellow, ocellated spots. *Stamens* four, two large and two small, inserted in the faux. *Ovary* ovate, free; *style* rather short; *stigma* rather small, two-lobed.

Fig. 1. Calyx. 2. Corolla laid open. 3. Stamen. 4. Pistil. 5. Transverse section of ovary :—*magnified*.

W.Fitch, del. et lith.

Vincent Brooks, Imp.

TAB. 5430.

DENDROBIUM CILIATUM.

Fringe-lipped Dendrobium.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5303.)

DENDROBIUM *ciliatum*; caule elongato tereti striato articulato vaginato parce folioso, foliis oblongis obtusis junioribus acutis, racemis subterminalibus axillaribusque cum pedunculo gracili erecto bracteato spithamæis multifloris, petalis sepalisque subconformibus patentibus oblongo-spathulatis luteo-viridibus, labello luteo purpureo-lineato cuneato-oblongo obsolete trilobo, lobis lateralibus elongatis incurvatis intermedio patente longe pulcherrime fimbriato-ciliato, ciliis clavatis, calcare conico subobtuso columnæ longitudine.

DENDROBIUM ciliatum. *Parish, in Hort. Low.*

A graceful and tall-growing species of *Dendrobium*, sent to us by Messrs. Low, of the Clapton Nursery, in November, 1863. It is one of the many interesting novelties discovered by the Rev. C. S. P. Parish at Moulmeine; and we gladly adopt his name, so aptly derived from the long, rather distant, clavate cilia, which fringe the middle lobe of the labellum, and which, on more minute examination, are found to be a prolongation of the veins of the labellum, of a very different character from real hairs.

Few gentlemen occupy a better locality for botanical researches than our reverend friend at Moulmeine, and few, we know, are disposed to derive greater advantage from such a position. He possesses, too, scientific knowledge, and great aptitude for drawing. We have been favoured with many specimens from his talented pencil, and amongst others of the magnified representation of the flowers of the *Dendrobium*, which are of the greatest service to the working botanist at home, who has often only dried and withered specimens from which to draw up his characters. Mr. Parish's labours among the Ferns have been as important as among the Orchidaceous plants, and we confidently hope he will

contribute largely to the forthcoming 'Flora Indica' of Drs. Hooker and Thomson, which has now been so liberally patronized by the First Secretary of State for India in Council.

Fig. 1. Column and anther. 2. Pollen-masses. 3. Labellum :—*magnified*.

2.
3.
1.

Tab. 5431.

HELICHRYSUM Mannii.

Mr. Mann's Helichrysum.

Nat. Ord. Compositæ.—Syngenesia Superflua.

Gen. Char. Capitulum multiflorum, nunc homogamum, *fl.* omnibus tubulosis hermaphroditis 5-dentatis, nunc heterogamum, *fl.* radii uniseriatis sæpe paucissimis, *fœmineis* gracilibus. *Involucrum* imbricatum, squamis scariosis, interioribus conniventibus aut radiantibus. *Receptaculum* planum, epaleaceum, nunc nudum aut areolatum, nunc fimbrilliferum. *Achænia* erostria, sessilia, *areola* terminali. *Pappus* uniserialis, *setis* subscabris nec plumosis, nunc liberis, nunc æqualiter basi subconcretis, nunc inæqualiter subcoadunatis seu ramosis.—Herbæ *aut* suffrutices. *Species præsertim Capenses, in omni orbi veteri et Australasia etiam crescentes, sed nunquam in America observatæ. De Cand.*

Helichrysum *Mannii;* caule erecto annuo (?) sed basi lignoso simplici inferne nudo, foliis copiosis lanceolatis approximatis patentibus oblique pinnatim venosis acuminatis basi semiamplexantibus subdecurrentibus, subtus præcipue cano-tomentosis, corymbo terminali amplo, capitulis globosis copiosis, involucri squamis scariosis (rarius flavis) albis flosculos tubulosos æquantibus omnibus erectis vel incurvis æqualibus (non radiantibus), pappo scabro.

Helichrysum Mannii. *Hook. fil. in Journ. Linn. Soc. Bot. v.* 6. *p.* 12.

De Candolle says of the genus *Helichrysum* "(etiam *Heliptero disjuncto*) *vastissimum*, nec tamen ulterius meo sensu separandum." He enumerates, so long ago as 1807, no less than 215 species! Time was when the beauty of many of the Cape and Australian species (*Gnaphaliums*, as they were then called) recommended them to our greenhouses and conservatories, and for the winter decoration of our mantelpieces, on account of the property of the flowers retaining their colours long after being gathered, whence they obtained the name of *Everlastings*. The present noble species, if it can be retained in our gardens and increased, may revive the taste for the genus. It is a native of the summit of the Peak of Fernando Po, and of the Cameroon Mountains, elevation from 4000 to 13,000 feet, where it was collected by Mr. Gustav Mann. As a species, its affinity is certainly with the Cape *Helichrysum*, *H. fœtidum*, Linn., figured

at Tab. 1987 of this work, which however is very different, as may be seen by a comparison with the figure just mentioned; that is moreover a small herbaceous plant, while this is tall and with quite a woody appearance below. It flowered in our stove in September, 1863.

Descr. Our cultivated plants attain a height of two and more feet. The *stem* thick as a man's finger, the lower half or nearly so brown, quite woody in appearance and bare of leaves, gradually more herbaceous upwards, and there clothed with close-placed, spreading, lanceolate, acuminate, slightly tortuose *leaves*, with a few erect patent veins, the base semiamplexicaul and slightly decurrent at the margins. The summit is crowned with a large convex *corymb*, six to eight inches across, bearing copious *flowers* (*capitula*) nestled as it were among the numerous bracts or floral leaves of the pedunoles. These *flowers* are an inch across, quite globose. *Involucre* white, sometimes rather a bright yellow, scariose, of numerous, acute, oblong, or subspathulate scales, green at the base, closely imbricated, the innermost ones not in any way constituting a ray, but rather incurved. The centre of the *flower* or *capitulum* constitutes a flat *disk*, of a bright yellow colour, formed of immmerable tubular *florets*, all attaining the same level. Hairs of the *pappus* slightly thickened upwards and scabrous, of the same length as the corolla.

Fig. 1. Scale of the involucre. 2. Tubular floret hair of the pappus:—*magnified*.

W Fitch del et lith

Vincent Brooks, Imp.

TAB. 5432.

QUAMOCLIT NATIONIS.

Mr. Nation's Quamoclit.

Nat. Ord. CONVOLVULACEÆ.—PENTANDRIA MONOGYNIA.

Gen. Char. Sepala 5, sæpius mucronata. *Corolla* tubuloso-cylindrica. *Stamina* exserta. *Stylus* 1. *Stigma* capitatum, bilobum. *Ovarium* 4-loculare, *loculis* monospermis.—Herbæ *volubiles, pleræque Americanæ. Chois.*

QUAMOCLIT *Nationis ;* perennis, radice tuberosa, foliis cordato-acuminatis omnino integris glabris, pedunculis folio longioribus tri-multifloris, sepalis mucronato-acuminatis, corollæ tubo elongato cylindrico albo, limbo diametro 2-unciali aurantiaco.

The old and extensive genus *Convolvulus* of Linnæus has been of late years split up into numerous genera, but, in the opinion of able botanists, in many instances on very insufficient grounds; and one has an example under *Ipomœa filicaulis*, Bl., given in our last number, for February, Tab. 5426, of the great multiplication of *species* on no better principles. It behoves me to steer clear of an error of this kind, for I was at first disposed to refer this splendidly-coloured flower to a gigantic form of *Ipomœa*, or *Quamoclit, coccinea* of our gardens. It has many of the essential characteristics of that well-known species, where the colour of its flower is notoriously variable. True, the difference in size is very unexpected, and is not at all exaggerated in our figure; and we have but to look at the Plate of *Ipomœa* (or *Calonyction*) *Bona-Nox*, given at our Tab. 752, with its large white flowers, not unlike in size and form some *Datura*, and compare with it the var. *β*, of Bot. Reg. t. 290, with its singularly small and purple flowers (a var. too generally acknowledged), to assure ourselves that other *Convolvulaceæ* vary in a no less remarkable degree. Still there are characters in this plant which compel me to adopt it as new. It is perennial, its long stems, running the whole length from the ground up the rafters of the greenhouse, arise from a large tuber. The leaves are never otherwise than cordate and entire, the sepals are less mucronate, and the

size and colour of the flower will recommend it for cultivation in the greenhouse or temperate stove. It may possibly bear our summers in the open air. We owe the introduction of this plant to Mr. Nation, who has been long resident in Peru, and has collected and studied the plants of that rich botanical region. It is cultivated at Lima, but is a native of the Cordillera, and we have the good fortune to possess in our Herbarium an unnamed native specimen, collected by Mr. Mathews in the Amancaes (his *n.* 721).

Descr. Perennial. *Root* a large firm *tuber*. *Stems* very long and slender, branched, climbing, glabrous. *Leaves* membranaceous, exactly cordate, acuminate, quite entire, three to five inches long, with a deep sinus at the base, and a flexuose *petiole* two to four inches long. *Peduncles* solitary, axillary, much longer than the leaves (including the petiole), flexuose, generally three-flowered at the apex. *Pedicels* half to an inch long, with a few glands, sensibly thickened upwards. *Calyx* half an inch long, erect, imbricated, ovate, mucronate-acuminate. *Corolla* hypocrateriform, with the *tube* cylindrical, two to two and a half inches long and as many lines in diameter, whitish, minutely pubescent. *Limb* spreading horizontally, two inches in diameter, of the richest orange-scarlet colour, five-lobed, the lobes rotundato-triangular, mucronulate at the apex; a plica or fold runs down the centre of each lobe. *Stamens* much exserted, the *style* less so. *Fruit* globose, firmly enclosed in the persistent calyx, four-celled; *cells* one-seeded.

Fig. 1. Pistil and hypogynal ring,—*slightly magnified.*

W. Fitch, del. et lith.

Vincent Brooks Imp.

Tab. 5433.

SACCOLABIUM Harrisonianum.

Mr. Harrison's Saccolabium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5326.)

Saccolabium *Harrisonianum;* foliis distiche imbricatis oblongis inferne carinato-canaliculatis striatis apice oblique bifidis, racemis multifloris densis pedunculatis axillaribus pendulis, floribus albis, sepalis ovato-oblongis obtusis planiusculis subincurvis, petalis angustioribus oblongis subspathulatis, labello oblongo-obovato obtuso grosse apiculato apicem versus saccato, disco linea solitaria elevata crassa, calcare obconico obtuso.

Saccolabium Harrisonianum. *Hort. Low.*

A beautiful white *Saccolabium*, as we consider it to be, with pure white, deliciously fragrant flowers, communicated to us in November, 1863, by Messrs. Stuart and Low, of the Clapton Nursery, who suggested the name *S. Harrisonianum*, in compliment to C. H. Harrison, Esq., a gentleman greatly interested in the introduction and cultivation of Indian Orchids. The present species was imported by him from Pulo Copang, in the Chinese seas, and so successfully that the specimen here figured flowered in the box during the voyage, and certainly does not give an idea of what may be expected from well-cultivated or native-flowering specimens; and indeed, withered samples in the same box (some of which were sent to us) prove that the racemes attain a length of twenty to twenty-four inches, and one plant received had seven such spikes upon it. The effect of such a specimen must be very striking.

In many respects (but not in the colour of the flowers) this plant bears a resemblance to *Saccolabium Blumei*, figured by Dr. Lindley in his 'Sertum Orchidaceum,' t. 47, but the apex of the leaves and of the labellum is different: still more does it resemble Dr. Lindley's *Vanda violacea*, figured at t. 30, of the 33rd volume of the Bot. Register, for 1847; so much so,

indeed, that I was quite disposed at first to consider our plant as a white-flowered variety of it. Indeed, generically, I do not see how these two plants are to be distinguished. The "rostellum subulatum" and the "labellum indivisum" are the same in both; but our plant exhibits nothing of the five elevated lines described and so distinctly figured in the *Vanda*. The flowers too of the latter are said to have a faint and rather disagreable smell. As *Vanda violacea*, however, is not introduced into the genus *Vanda* in Dr. Lindley's 'Folia Orchidacea,' a memoir published six years after that of *V. violacea*, it is probable the author may have thought it right to remove the latter from *Vanda*. Neither on the other hand is it mentioned in Dr. Lindley's list of "*species excluded*" from that genus.

Fig. 1. Front view of a flower, the perianth being removed. 2. Side view of the same:—*magnified.*

W Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5434.

BEGONIA Mannii.

Mr. Mann's Begonia.

Nat. Ord. Begoniaceæ.—Monœcia Polyandria.

Gen. Char. Masc. *Calyx* 0. *Corolla* polypetala, petalis plerumque 4, inæqualibus. Fœm. *Calyx* 0. *Corolla* petalis 4–9 plerumque inæqualibus. *Styli* 3, bifidi. *Capsula* triquetra, trilocularis, polysperma.

Begonia *Mannii;* erecta, succulenta, bipedalis, foliis æquilateralibus ovatis acuminatis irregulariter remoto-serratis supra glabris subtus discoloribus minutissime copiose punctulatis, petiolis breviusculis costisque subtus rufo-hirsutulis, stipulis lanceolatis, pedunculis glomeratis subtrifloris axillaribus, floribus tetrapetalis roseis, petalis 2 minoribus, staminibus arcte in conum imbricatis, ovariis capsulisque cylindraceis minute squamulosis, 4-locularibus, stigmatibus lineari-clavatis.

We have above given only the old generic character of *Begonia*, as considered in its integrity. The late Dr. Klotzsch has, in his 'Essay on *Begonia*,' formed several new genera, chiefly of American species, and M. De Candolle is far advanced with his materials, from a complete study of most ample suites of species and specimens of the family for a forthcoming volume of the 'Prodromus.' A new form among *Begoniaceæ* has lately been discovered by Mr. Mann, is tropical, viz. the *B. prismatocarpa*, figured at Tab. 5307 of this work (vol. 88, for 1862), possessing an elongated, pod-like 4-celled capsule, quite destitute of wing! We are since in possession of two other West African species, with the same character, from the same indefatigable collector, of which one is here given. It was introduced living to Kew Gardens, in 1862, and was found on the Peak of Fernando Po, at an elevation of not more than 1300 feet above the level of the sea.

Descr. Epiphytal. *Stem* succulent, one and a half to two feet high, unbranched in our specimens, and glabrous. *Leaves* four to five inches long, petiolate, ovate, acuminate, scarcely perceptibly unequal-sided, distantly and irregularly subdentate, pen-

niveined, glabrous above, beneath minutely punctated with very minute scale-like dots. *Petiole* one to two inches long, and the costa beneath, rufo-pubescent. *Stipules* large, membranaceous, subulato-lanceolate, deciduous. *Peduncles* axillary, short, fascicled, bearing from two to three flowers and a *bract* beneath them. *Petals* four, rose-colour, two larger subovate, two smaller oblong-linear. MALE FL. *Stamens* sessile, arranged in a closely imbricated cone-shaped mass. FEM. FL. with a nearly cylindrical tomentose *ovary: tomentum* mixed with laciniated scales. *Capsule* more than an inch long, siliquiform. *Styles* four, linear-clavate (not capitate).—The elongated inferior *ovary*, crowned with four spreading rose-coloured petals, very much resemble the flower of an *Epilobium* with irregular petals.

Fig. 1. Male flower. 2. Cluster of stamens. 3. Portion of a stem with bracts and flowers. 4. Styles. 5. Seed-vessel. 6. Transverse section of the same. 7. Scale from the surface of the capsule :—*magnified.*

W. Fitch. del. et lith

Vincent Brooks, Imp

Tab. 5435.

ADA aurantiaca.

Deep Orange-flowered Ada.

Nat. Ord. Orchideæ.—Gynandria Monogynia.

Gen. Char. Perianthium clausum, apice patulum. *Sepala* subæqualia, acuminata; lateralibus basi paulo obliquis. *Petala* conformia, breviora. *Labellum* elongatum, indivisum, columna parallelum, eique basi adnatum; lamellis duobus membranaceis in appendicem linearem truncatum connatis. *Pollinia* 2, cereaceà, postice sulcata; *caudicula* brevi, obovata; *glandula* circulari. *Anthera* Oncidii, ecristata.—Herba *epiphyta, Americæ tropicæ, habitu omnino* Brassiæ *cujusdam glumaceæ.* Scapus *bisquamatus.* Spica *cylindracea, simplex,* bracteis *membranaceis.* Flores *xanthini. Lindl.*

Ada *aurantiaca;* foliis canaliculatis, scapo longiore bisquamato, bracteis cucullatis membranaceis ovariis sessilibus multo longioribus, floribus apice tantum patulis, sepalis petalisque lineari-lanceolatis acuminatis, labello lineari-lanceolato acutissimo convexo columnæ elongatæ basi adnato, lamellis membranaceis connatis apice truncatis acutis basi intus pubescentibus. *Lindl.*

Ada aurantiaca. *Lindl. Fol. Orchid.*

The flowering specimen of this rare Orchidaceous plant was sent to us in January of the present year by our excellent friend Mr. Bateman, from his collection at Biddulph Grange, Congleton. It is a native of New Granada, and was discovered in the Pamplona, at the height of 8500 feet above the level of the sea, by Mr. Schlim, and has been hitherto only known by the description given by Dr. Lindley in his valuable 'Folia Orchidacea.' It is there recognized as a new genus, "differing from *Brassia* in some important particulars:—1, the lamellæ of the lip are confluent and membranaceous; 2, the lip is parallel with the column, and solidly united to the base of it; 3, the column is twice as long as in other *Brassias*, and thin-edged at the base; 4, the caudicle is short and obovate while the gland is circular." It flowered with Mr. Bateman in January, 1864.

Descr. Epiphytal. *Pseudobulbs* about four inches long, subcylindrical, tapering upwards, bearing one to three broad linear

leaves at the extremity, four to six inches long, and, at their base, partially sheathed with reddish-brown mottled *scales*. *Scape* terminal, drooping, eight to ten inches long, bracteated. *Spike* oblong, pendent, in our specimen bearing about ten subdistichous rather distantly placed *flowers* of a golden orange colour. *Ovaries* elongated, clavate, with a scariose lanceolato-subulate *bract* at the base. *Perianth* spreading only from above the middle; the *sepals* lanceolate, much acuminate; *petals* resembling them, but smaller. *Lip* scarcely half the length of the perianth, broadly lanceolate, shortly acuminate, crested with a grooved membrane of the same shape, nearly the length of the lip, its margins irregularly toothed near the middle. *Column* short, thick, concave near the base in front. *Anther-case* small, hemispherical. *Pollen-masses* two, obovate, seated on a cuneate *caudicle* which arises from a gland. (Some slight differences will appear in our description from the characters of Dr. Lindley, arising probably from the fact of Dr. Lindley having only a dried specimen to consult.)

Fig. 1. Flower slightly magnified. 2. Side view of column and lip. 3. The same, the lip seen from above. 4. Front view of the column. 5. Pollen-masses :—*magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5436.

MILTONIA Regnelli.

Regnell's Miltonia.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala explanata, æqualia; lateralibus basi paulo connatis. *Petala* conformia, æquilonga. *Labellum* indivisum, sessile, cum columna continuum, lineis quibusdam elevatis, interruptis juxta basin. *Columna* nana, auriculis 2, nunc cum clinandrio cucullato confluentibus. *Stigma* excavatum. *Pollinia* 2, cereacea, postice sulcata; caudicula obovata; *glandula* oblonga. *Anthera* operculata, membranacea, nuda.—Herbæ *epiphytæ, Americæ tropicæ, pseudobulbosæ*, colore *sæpius lutescente*. Folia *angusta, plana*. Racemi *simplices, radicales*, pedunculo *sæpius squamis arcte imbricato*. Flores *speciosi, lutei vel purpurei*.

Miltonia *Regnelli;* pedunculo paucifloro, bracteis lanceolatis nervosis pedicellis longioribus, sepalis lanceolatis, petalis oblongis, nunc obovatis acutis, labello subpandurato apice quadrato emarginato basi cuneato, callis tribus elevatis parvis intermedio minore, alis columnæ integris falcatis. ***Lindl.***

Miltonia Regnelli. *Reichenb. fil. in Linnæa, v.* 22. *p.* 851. *Ejusd. Xenia Orchid. v.* 1. *p.* 133. *t.* 42. *Lindl. Fol. Orchid. Miltonia, p.* 2.

We owe the possession of this plant to the Botanic Garden of Berlin. It was first described and figured by Dr. Reichenbach fil., from plants introduced into Europe from Minas Geraes, Brazil, by Mr. Regnell. It flowered with us in August, 1863. Dr. Lindley had only seen a single dried flower of it, and he considers it to be nearer *M. Russelliana*, Lindl. Bot. Reg. t. 1830 (under the generic name *Oncidium*), than to any other species of the genus; but from that it is totally distinct, and, but for the scape being more than one-flowered, it might almost pass for a form of *M. spectabilis*. Reichenbach gives, as the essential character of *M. spectabilis*, "pedunculo ancipiti interrupte vaginato, labello æqualiter pandurato obovato-rotundato retuso, lamellis ternis in basi;" and of *M. Regnelli*, "labello sessili obpandurato, antice obtuso emarginatove plano, carinulis

ternis in basi, gynostemii alis apice acutis." The foliage and pseudobulbs are very similar in both; but the flowers are very inferior in size and colour of our present species.

Fig. 1. Column :— *magnified.*

2.

1.

4.

3.

W Fitch, del et lith.

Vincent Brocks, Imp.

Tab. 5437.

REIDIA GLAUCESCENS.

Glaucescent Reidia.

Nat. Ord. Euphorbiaceæ.—Monœcia Diandria.

Gen. Char. Reidia, *Wight.*—Flores monoici v. dioici. Masc.: *Sepala* sæpissime 4; *glandulæ* 4. *Stamina* 2, sessilia v. sæpissime columna centrali terminalia, loculis divaricatis transverse dehiscentibus. Fœm.: *Sepala* sæpissime 5–6; *glandulæ* 5–6. *Ovarium* 3-loculare, stylo brevi trifido, ramis bifido; *ovulis* loculis 2 collateralibus. *Capsula* 3-cocca, coccis 1–2-spermis.—Arbores *v.* frutices, foliis *alternis sessilibus v. brevipetiolatis;* stipulis 2, *lateralibus caducis;* pedunculis *axillaribus, unifloris,* masculis *inferioribus,* fœminibus *terminalibus;* floribus *parvis.*

Epistylium *glaucescens;* ramulis puberulis, foliis brevissime petiolatis oblique oblongis apiculatis subtus glaucis, pedunculis masculis solitariis v. paucis, fœmineis solitariis longioribus, sepalis basi rubris fimbriato-laceris, antheris sessilibus, ovario glaberrimo.

Reidia glaucescens. *Miquel, Flor. Ned. Ind. v.* 1. *p.* 374.

Eriococcus glaucescens. *Zoll. Herb.* 2701.

This very pretty stove-plant was brought to the Royal Gardens from Siam, by Thomas Christy, jun., Esq., and owing to its graceful habit, regular distichous foliage, glaucous beneath, numerous pendulous flowers, and red peduncles and branches, it is very attractive. The flowers remain in perfection, too, for a very long time. It belongs to a genus of which there are several species in India, a good deal resembling the present, which however differs from all in the fimbriate sepals, glabrousness, and other points. Miquel's specimens are from Java, and they seem to differ from ours in the less fimbriated sepals.

Descr. A small, graceful, glabrous *shrub*. *Leaves* broadly oblong, blunt at both ends, apiculate, quite glabrous, glaucous beneath. *Peduncles* bright red, of the *male* flowers, on the lower axils, solitary or few together, capillary, shorter than the leaves; of the *female*, towards the end of the branches, longer, stouter, solitary. *Flowers* yellow-red at the base. *Sepals* all

deeply fimbriate, of *males* four, of *females* six ; but of both rather variable in number. *Glands* of *male* flower four, connate into a four-lobed disk ; of *female*, forming a cup-shaped disk. *Anthers* sessile. *Ovary* smooth ; *style* 0.

Fig. 1. Male flower. 2. Glands and anthers of ditto. 3. Female flower. 4. Ovary :—*magnified.*

W. Fitch, del. et lith

Vincent Brooks, Imp.

Tab. 5438.

VIEUSSIEUXIA FUGAX.

Fugacious Vieussieuxia.

Nat. Ord. Iridaceæ.—Triandria Monogynia.

Gen. Char. Perigonium corollinum superum, hexaphyllo-rotatum; *laciniis* exterioribus basi unguiculato-angustatis, sæpe barbatis, interioribus subulatis v. tricuspidatis. *Stamina* 3, disco epigyno imposita; *filamenta* in tubum connata; *antheræ* oblongæ, basifixæ. *Ovarium* inferum, oblongo-prismaticum, triloculare. *Ovula* plurima, in loculorum angulo centrali biseriata, horizontalia, anatropa. *Stylus* brevis, filiformis; *stigmata* 3, petaloideo-dilatata, biloba, staminibus opposita. *Capsula* coriacea, obtuse trigona, trilocularis, loculicido-trivalvis. *Semina* plurima.—Herbæ *Capenses;* rhizomate *tuberoso;* foliis *paucis ensatis*, caule *tereti paniculatim ramoso*, floribus *intra* spathas *diphyllas herbaceas solitariis*, *pedicellatis. Endl.*

Vieussieuxia *fugax;* (imberbis) involucris herbaceis, folio longissimo, corollæ laminis subconformibus, extimis duplo majoribus obovato-oblongis, stigmatibus assurgentibus incurvo-convergentibus, filamentis deorsum connatis. *Gawl.*

Vieussieuxia fugax. *De la Roche. De Cand. Ann. du Mus. v.* 2. *p.* 139. *Rœm. et Schult. Syst. Veget. v.* 1. *p.* 489.

Moræa fugax. *Jacq. Hort. Vind. v.* 3. *t.* 20. *p.* 14.

Moræa vegeta. *Jacq. Ic. Rar. v.* 2. *p.* 20.

Moræa edulis. *Gawl. Bot. Mag. t.* 613 *and t.* 1238 (*flore flavo*).

Iris longifolia. *Vahl, Enum. v.* 2. *p.* 149. *Andr. Bot. Repos. t.* 45.

This very pretty Iris-like plant was first imported from the Cape by Messrs. Loddiges, of Hackney, at the very beginning of the present century; but we believe it had been long lost to our garden till the past year, 1863, when Mr. Cooper, in his botanical travels, sent the bulbs to his employer, William Wilson Saunders, Esq. To the latter gentleman we are indebted for the possession of the plant, which flowered with us in August.

It exhibits broader leaves than those of the many varieties that are figured, and the flowers are extremely elegant in the colours and markings. The ground-colour of the perianth is a pale lilac, and the three petals (which are generally broader than the sepals) have a very bright orange spot near the base of the

limb, from which some dark-purple lines diverge, rendering the spots thereby the more conspicuous.

The plant succeeds well in a cool greenhouse, or in a frame quite exposed to the air in the summer.

Fig. 1. Flower, deprived of its perianth. 2. Transverse section of the ovary :—*magnified.*

W. Fitch del. et lith.

Vincent Brooks Imp.

Tab. 5439.

SCUTELLARIA Costaricana.

Costa Rica Scutellaria.

Nat. Ord. Labiatæ.—Didynamia Gymnospermia.

Gen. Char. Calyx campanulatus, bilabiatus; *labia* integra (*i. e.* sepalo summo excluso squamæformi, lateralibus in labium superius, inferioribus in inferius coalitis), post anthesin clausa, demum usque ad basin fissa, superius superne squama dilatata supra concava auctum, ad maturationem deciduum, inferius persistens. *Corolla tubo* longe exserto, intus nudo recto vel sæpius extra calycem recurvo-adscendente, superne in faucem dilatato: *limbo* bilabiato, *labio* superiore apice integro vel emarginato, inferiore patenti-dilatato convexo, apice emarginato, lobis lateralibus nunc liberis patentibus, sæpius cum labio superiore coalitis, rarissime cum inferiore. *Stamina* e tubo exserta. *Antheræ* per paria approximatæ, ciliatæ, staminum inferiorum dimidiatæ, superiorum biloculares cordatæ; *loculis* subdivaricatis, dorso oppositis. *Styli* lobus superior brevissimus. *Ovarium* gynophoro incurvo elevatum, obliquum. *Nuculæ* siccæ, nudæ, tuberculosæ, glabræ vel tomento adpressæ, pubescentes.—Herbæ *annuæ vel perennes, vel rarius* frutices, *omnium fere regionum incolæ, excepta* Africa transtropica. *Benth.*

Scutellaria *Costaricana;* herbacea, glabra, caule erecto atropurpureo, foliis ovatis acuminatis serrato-dentatis sublonge petiolatis, floribus racemosis subsecundis, bracteis minutis linearibus, pedicellis calycibusque parvis atropurpureis, corollis longissimis minute pubescentibus erectis tubuloso-infundibuliformibus sursum curvatis, fauce lutea.

Scutellaria Costaricana. *Wendl.*

We have lately figured several handsome scarlet-flowered tropical American *Scutellariæ*,—for example, *S. cordifolia* (Tab. 4290), *S. incarnata* (Tab. 4268, and var., Tab. 5185), *S. Ventenatii* (Tab. 4271), and *S. villosa* (Tab. 4789); but the present one is quite distinct from any of them, and certainly much more beautiful, perhaps the most beautiful, of any of this now extensive genus, numbering as it does, according to Mr. Bentham, eighty-six species. Its beauty consists in the great size and the colouring of the numerous flowers: these measure two inches and a half in length, of a rich golden-scarlet colour, with the faux, or inside of the lips, a deep yellow. It is a native of

Costa Rica, and was introduced into Europe, we believe, by Mr. Wendland, to whom we are indebted for our living plants, which flowered in a warm stove in June, 1863.

Fig. 1. Flower very *slightly magnified*. 2. Summit of the corolla laid open, showing the stamens. 3. One of the stamens. 4. Pistil and gynophore:—*magnified*.

3.

2.

W. Fitch del. et lith.

Vincent Brooks Imp.

Tab. 5440.

ERANTHEMUM CRENULATUM; var. *grandiflorum.*

Crenulate-leaved Eranthemum; large-flowered var.

Nat. Ord. Acanthaceæ.—Diandria Monogynia.

Gen. Char. Calyx quinquefidus, æqualis. *Corolla* hypocraterimorpha vel elongato-infundibuliformis; *tubo* longo gracili, *limbo* subæquali. *Stamina* duo fertilia circa os tubi adnata, longe decurrentia, duo sterilia brevissima, filamentis longiorum basi connexa, in speciebus nonnullis anomalis nullis observatis. *Antheræ* exsertæ, biloculares, muticæ; *loculis* parallelis contiguis, texturæ densioris. *Capsula* inferne depressa; *valvulis* contiguis, asperma; superius bilocularis, tetrasperma. *Dissepimentum* adnatum. *Semina* discoidea, retinaculis suffulta.—Frutices *vel* suffrutices, *Asiæ, Americæ, Africæ, et Novæ Hollandiæ calidioris et tropicæ, plerumque monticolæ, speciosis* floribus *insignes* Phlogi *similibus, cæruleis, roseis, albis varie pictis;* foliis *vel integerrimis vel serratis.* Flores *spicati;* bracteis *communibus majoribus vel minoribus;* bracteolis *omnium parvis oppositis. Nees.*

Eranthemum *crenulatum;* fruticosum, erectum, caule inferne foliisque oblongis utrinque acuminatis repando-crenatis glaberrimis, racemo terminali simplici compositove pluribusve axillari-aggregatis simplicibus, floribus fasciculato-congestis subverticillatis secundisve, bracteis bracteolisque subulatis brevibus calycibusque glanduloso-scabris, corollæ laciniis ovatis obtusis æqualibus. *Nees.*

Eranthemum crenulatum. *Wall. in Bot. Reg. t.* 879. *Nees in Wall. Plant. Asiat. Rar. v.* 3. *p.* 107. *Spreng. in Syst. Veget. Cur. post p.* 19. *Wall. Cat. n.* 2491. *Nees in De Cand. Prodr. v.* 11. *p.* 453.

Justicia latifolia. *Vahl, Symbol. v.* 2. *p.* 1. *p.* 370. *Willd. Sp. Pl. v.* 1. *p.* 88.

Eranthemum diantherum. *Bl. Bijd. p.* 792 (*nec Roxb.*).

Justicia Honamoorensis. *Hort. Madrid. Wall. Cat. n.* 2491 *a.*

Var. *angustifolia;* foliis angustioribus fereque lanceolatis.

Justicia orbiculata. *Wight in Wall. Cat. n.* 2489.

Var. *grandiflora;* foliis latioribus; floribus majoribus. (Tab. Nostr. 5440.)

Seeds of this plant were sent to us from Moulmeine by the Rev. C. S. Parish, and it is, we think, a large and handsome variety of the *Eranthemum crenulatum*, a species very common in Ceylon and India; as the Madras Peninsula, but most abundant perhaps in the Malay Peninsula and Islands, varying, however,

considerably in the breadth of the foliage, and in the size of the flowers (which with us are in perfection in the winter months), and in the colour of the latter; for, whereas the limb of the corolla is dull lilac in the specimen figured in the 'Botanical Register,' here it is rather a bright pink. The specific name *crenulatum* is hardly characteristic of the leaves.

Descr. A moderately-sized glabrous *shrub*, slightly branched and herbaceous upwards. *Leaves* rather long-petioled or ovate, sometimes cordate at the base, or lanceolate, acuminate, penni-veined, generally quite entire at the margin. *Racemes* terminal, aggregated, three to four inches to a span long, with or without a pair of floral leaves near the base. *Pedicels* very short, small, approximate or remote, subtended by one or two small *bracts*. *Calyx* small, erect, quinquefid, with broad subulate segments. *Corollas* in our plant an inch and a half to an inch and three-quarters long, infundibuliform, with a very slender, almost filiform, white *tube*, dilated at the *faux*, and there curved, so that the limb is oblique, five-cleft, rose-colour, white in the mouth; *stamens* two, or four and didynamous, exserted; *anthers* apparently all perfect. *Ovary* oval. *Style* very slender, filiform, as long as the tube.

Fig. 1. Tube of the corolla laid open. 2. Anther. 3. Pistil:—*magnified.*

W. Fitch del et lith.

Vincent Brooks Imp.

Tab. 5441.

DENDROBIUM LUTEOLUM.

Pale yellowish-flowered Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *luteolum;* caulibus erectis foliosis ramosis, foliis lanceolatis apice obliquis acutis, racemis lateralibus 2–4-floris subæqualibus, sepalis ovato-lanceolatis obtusis, lateralibus in mento longe producto incurvo connatis, petalis conformibus, labelli trilobi lobis lateralibus erectis rotundatis intermedio majore oblongo convexo emarginato, disco tomentoso. *Batem.*

Dendrobium luteolum. *Bateman in Gard. Chron. for* 1864, *p.* 269 *a.*

The beauty of this *Dendrobium* has attracted much attention at the Nursery of Messrs. Hugh Low and Co., at Clapton; and happily our valued friend Mr. Bateman has undertaken to describe it for the 'Gardeners' Chronicle,' and has obligingly sent a proof slip to us to accompany Mr. Fitch's figure. Native of Moulmeine, and sent with many other fine things to Messrs. Low, of Clapton, by the Rev. C. S. Parish. "With the exception of a few reddish streaks on the lip, the flowers of this new *Dendrobium* are of a uniform pale primrose tint; indeed, I should have called it *D. primulinum*, if that name had not been already appropriated to another and totally different species. The mentum (or spur) is about the length of the ovary, and is curved inwards. The flowers are about two inches across, and are remarkable for their straight margins or edges, which are not waved or curled, as in most *Dendrobia;* they are borne in short lateral racemes that come forth towards the upper (not the end) portion of the stems. With me these racemes are two-flowered; but in a much finer specimen from Clapton, of which a drawing has been prepared for the 'Botanical Magazine,' as many as four flowers appeared together, and possibly this number may be exceeded when the plant, which is of the easiest culture, has been longer

established. Even now it is very ornamental. Its nearest affinity is with *D. rhombeum*.

"Moulmeine seems to be inexhaustible in new *Dendrobia*; Messrs. Hugh Low and Co. can already boast of having introduced from the same source nearly a dozen species that were previously unknown, among which the present is one of the most distinct." *J. Bateman.*

Fig. 1. Column and spur. 2. Front view of the labellum. 3. Pollen-masses:—*magnified.*

W. Fitch del et lith

Vincent Brooks Imp

Tab. 5442.

ALSTRŒMERIA Caldasii.

Caldas's Alstrœmeria.

Nat. Ord. Amaryllidaceæ.—Hexandria Monogynia.

Gen. Char. Perigonium corollinum, superum, sexpartitum, subcampanulatum, regulare, v. subbilabiatum; *foliola*, lateralia angustiora, duo basi subtubulosa. *Stamina* 6, imo perigonio inserta; *filamenta* erecta v. declinata; *antheræ* ovales, erectæ. *Ovarium* inferum, triloculare. *Ovula* in loculis plurimis, horizontalia, anatropa. *Stylus* filiformis, directione staminum; *stigma* trifidum, lobis replicatis. *Capsula* oblonga v. globosa v. rarius baccata, indehiscens. *Semina* in loculis plura, subglobosa, horizontalia; *testa* membranacea, rugosa; *rhaphe* immersa, umbilicum basilarem *chalazæ* apicali tuberculiformi jungente. *Embryo* axilis, albumine carnoso dimidio brevior, extremitate radiculari umbilicum attingente.—Herbæ *in America tropica et australi extratropica indigenæ;* radicibus *tubuloso-fasciculatis;* caule *folioso, erecto, scandente v. volubili;* floribus *terminalibus umbellatis. Endl.*

§ Bomarea, *caule scandente v. volubili; capsula depresso-globosa. Endl.*—Bomarea, *Mirb. Herbert.*

Alstrœmeria (Bomarea) *Caldasii;* caule flexuoso glabro, foliis ovato-lanceolatis tenui-acuminatis obscure striatis subcarnosis, petiolis rubris, umbella multiflora, floribus sesquiuncialibus aurantiacis, petalis lato-spathulatis calyce multo longioribus rubro-punctatis, ovario styloque pubescentibus.

Alstrœmeria Caldasii. *Humb. et Kth. Nov. Gen. Am. v.* 1. *p.* 283. *Schult. Syst. Veget. v.* 7. *p.* 750.

Bomarea Caldasiana. *Herb. Amaryl. p.* 118. *Kth. Enum. Plant. v.* 5. *p.* 813.

A mostly lovely *Alstrœmeria* (of the *Bomarea* group), lately imported from the Quitinian Andes, where it was first discovered by Humboldt and Bonpland. It will prove, I dare say, like many other *Alstrœmerias*, sufficiently hardy to bear our winters, that is, if the roots are planted deep in the ground to protect them from the frost. Our specimens were received from Messrs. Veitch, of the Chelsea Nursery, and the roots were procured by their collector, Mr. Pearce.

Mirbel first distinguished the genus *Bomarea* from *Alstrœmeria*, and was followed by Herbert and Kunth, but on such

slight grounds that, as it appears to me, Endlicher has done wisely in making it only a section of that genus.

Fig. 1. Petal. 2. Stamen. 3. Pistil. 4. Section of the ovary :— *slightly magnified.*

W. Fitch del et lith.

Vincent Brooks Imp.

Tab. 5443.

WAITZIA CORYMBOSA.

Corymbose Waitzia.

Nat. Ord. Compositæ.—Syngenesia Superflua.

Gen. Char. (*Vide supra*, Tab. 5342.)

Waitzia *corymbosa;* caule erecto simplici basi pauce ramoso apice corymboso laxe lanato, foliis lineari-lanceolatis scabriusculis, capitulis campanulato-turbinatis, involucri squamis ovatis acutis, exterioribus hyalinis vel roseis, interioribus niveis, stipitibus omnium dorso glanduliferis, intermediarum teretibus apice lanatis, intimarum planis, achæniis glabris, summo apice subpapillosis in rostrum ipsis sesqui- vel duplo longius attenuatis, pappo niveo.

Waitzia corymbosa. *Wendl. in Plant. Preissianæ, v.* 1. *p.* 450.

Leptorhynchus suaveolens. *Benth. in Endl. Enum. Pl. Hugel. p.* 64. *n.* 208. *De Cand. Prodr. v.* 6. *p.* 160.

Morna nivea. *Lindl. Bot. Reg. v.* 24. *t.* 9.

A lovely herbaceous and probably annual plant, presenting a great variety of colouring of flowers in the same species. Preiss enumerates two varieties, chiefly depending on colour. Our specimens here figured were raised by Mr. Thomson, of Ipswich, in 1863, from seeds received from the Swan River settlement, West Australia, and produced in the open ground plants of three different colours: 1. White, as represented by Dr. Lindley, under the name of *Morna nivea* (in our specimens, slightly tinged with pink); 2. Deep rose-colour (the scales of the involucre indeed white and satiny within); 3. Entirely yellow:—in all cases the disk is deep-yellow. We think that the species may prove a valuable bedding-out plant.

We have already figured *Waitzia Steetziana*, at Tab. 5342 of this work,—a species well distinguished, besides the characters above given, by its globose heads of flowers, of which the scales

of the involucre are never reflexed in the remarkable manner we find to be in our present plant.

Fig. 1. Leaf. 2. Scale of the involucre. 3. Floret. 4. Hair of the pappus :—*magnified*.

W. Fitch del et lith.

Vincent Brooks Imp

TAB. 5444.

DENDROBIUM BARBATULUM.

Bearded-lipped Dendrobium.

Nat. Ord. ORCHIDEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5003.)

DENDROBIUM *barbatulum;* caulibus erectis cylindricis vaginatis, foliis remotis oblongo-lanceolatis, racemis terminalibus (lateralibusque, *Lindl.*) strictis multifloris, perianthium explanatum album, sepalis lanceolatis, petalis latissime obovatis, labello trilobo, basi barbatulo, lobis lateralibus parvis oblongis incurvis purpureo-roseis, intermedio latissime obcordato apiculato integerrimo petalorum magnitudine, calcare obtuso breviusculo.

DENDROBIUM barbatulum. *Lindl. in Wall. Cat. n.* 2013. *Gen. et Sp. Orchid. p.* 84. *Paxton, Fl. Gard. v.* 3. *p.* 113. (woodcut). *Batem. in Gard. Chron.* 1864, *p.* 269.

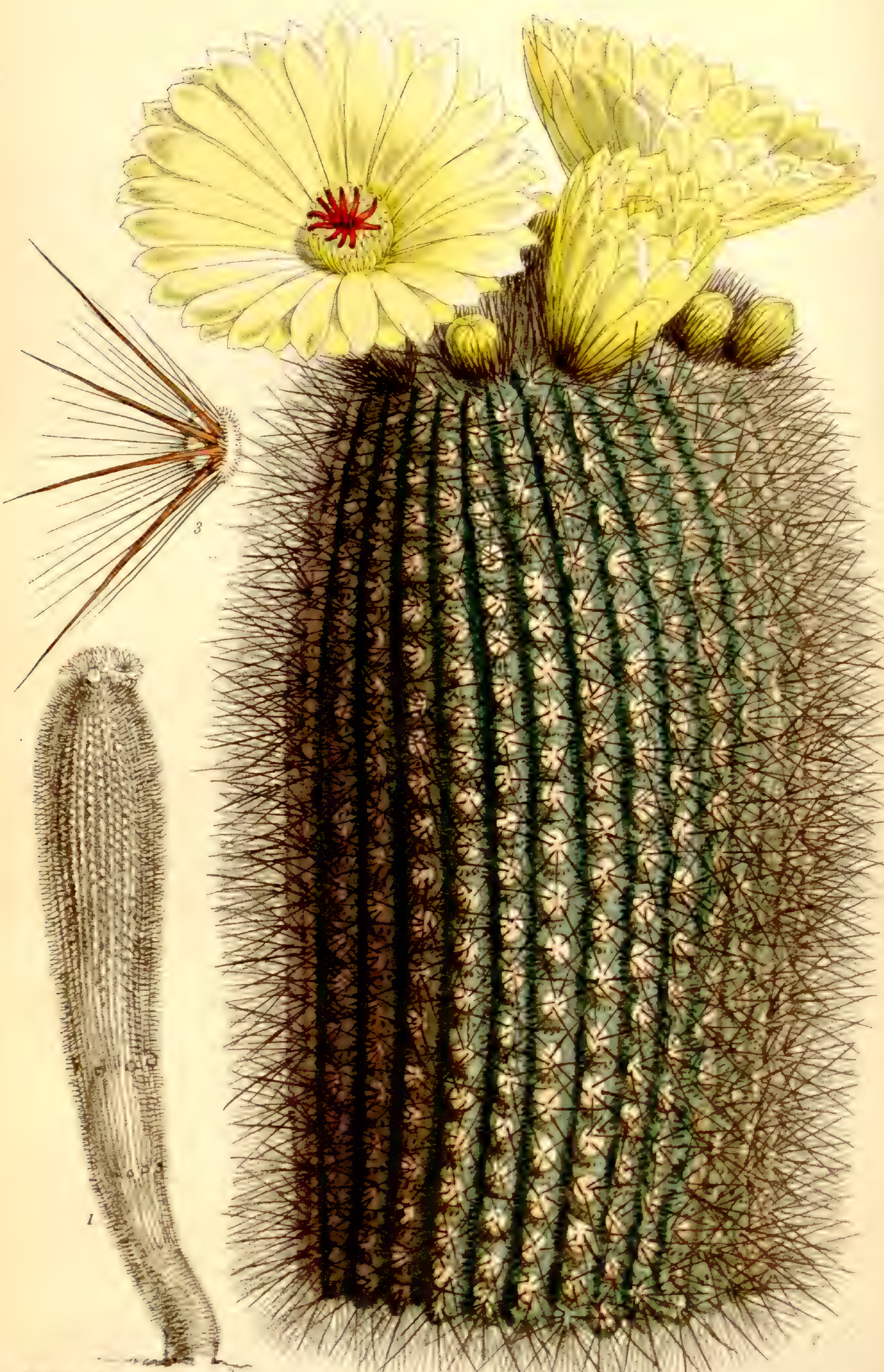
DENDROBIUM Fytchianum. *Batem. in Gard. Chron.* 1864, *p.* 100.

This very lovely plant has recently been introduced to this country by Mr. Parish, from Moulmein, through Messrs. Low, of the Clapton Nursery, from whom the specimen here figured has been received in January of the present year (1864). It appears to have flowered previously in the collection of Aspinal Turner, Esq., at Pendlebury House; and believing it to be new, Mr. Bateman named and described it as *D. Fytchianum*, in compliment to Colonel Fytch, the companion of Mr. Parish at the time it was found. But afterwards, notwithstanding some discrepancies, he satisfied himself of its being specifically the same, and corrected the error in a succeeding number of the same work. Mr. Bateman remarks, "The flowers are throughout of the most dazzling whiteness, except that the small lateral lobes are tinged with crimson. They are scentless, and borne in graceful racemes a span long, proceeding from the extremity of the upright stems, the latter being about a foot long, and of the thickness of

a goosequill. The slender linear-leaves unfortunately fall off before the flowers, which are about an inch across, have had time to expand. My description is taken from a most beauteous specimen, bearing upwards of twenty flowers."

This plant, Mr. Bateman remarks to us, should always be grown on a block of wood, and requires a decided season of rest.—*J. B.*

Fig. 1. Column and spur. 2. Pollen-masses. 3. Lip:—*magnified.*



3

1

W Fitch del et lith

Vincent Brooks Imp

Tab. 5445.

ECHINOCACTUS Scopa.

Broom Echinocactus.

Nat. Ord. Cactaceæ.—Icosandria Polygynia.

Gen. Char. Perigonii tubus ultra germen productus, brevis, vel subelongatus, squamosus; *phylla* sepaloidea, infima squamiformia; *superiora* acuta vel obtusa, axillis setigeris vel nudis; *petaloidea* varie expansa, corollam campanulatam vel infundibuliformem æmulantia. *Stamina* numerosa, tubo adnata, limbo breviora. *Stylus* stamina vix superans, columnaris, sæpe sulcatus ac fistulosus. *Stigma* 5–10-radiatum, radiis abbreviatis aut lineari-extensis. *Bacca* perigonium marcescens dejiciens, sepalis adnatis plus minusve squamata, pulvillis lani-setigerisque instructa, vel interdum glabra. *Cotyledones* minutæ, connatæ, acutæ vel globosæ.—Caulis *carnosus, depressus, globosus, oblongus aut cylindraceus*, costis *plus minusve numerosis, aut* tuberculis *pulvilligeris distinctis verticaliter aut spiraliter dispositis instructus.* Flores *ex axillis pulvillorum juniorum, interdum lana densa instructis, per aliquot dies mane aperti noctuque clausi.* Bacca *sepalis adnatis plus minusve squamata. Salm-Dyck.*

Echinocactus (§ Microgoni) *Scopa;* erectus, cylindraceo-clavatus, subsesquipedalis, costis 30–36 verticalibus tuberculatis, areolis albo-tomentosis confertissimis, aculeis centralibus 3–4 purpureis subvalidis, radiantibus 30–40 setaceis albis, floribus subcopiosis circa verticem locatis luteis diametro biuncialibus, tubo brevissimo basi aculeis intense purpureis obtecto, petalis biserialibus spathulatis apice subserratis.

Echinocactus. *Link. Hort. Berol. v. 2. p.* 21. "*Link et Otto, Icon. t.* 41." *Lindl. Bot. Reg. v.* 24. *t.* 24. *Salm-Dyck, Cact. Hort. Dyck. p.* 32. *Pfeiff. En. Diagn. Cact. p.* 64.

Cereus Scopa. *De Cand. Prodr. v.* 3. *p.* 464.

Cactus Scopa. *Link, En. v.* 2. *p.* 21.

A curious cactoid plant, and really handsome of its kind, native of Brazil. Young individuals are of an oval form, but when more fully grown attaining a height of a foot or a foot and a half, quite clavate, furrowed for its whole length, the ridges studded with white cottony pulvilli, from which radiate tufts of long, white, setaceous bristles, mixed with about four, brown or purple, moderately strong aculei. The flowers are very pretty.

May 1st, 1864.

and form a circle around the apex of lemon-yellow colour, with a purple radiating centre, formed by the rays of the stigma. It flowers in June.

Fig. 1. A much *reduced figure* of the entire flowering plant. 2. Summit of the same,—*natural size*. 3. Pulvinulus from a costa, with its setæ,—*magnified*.

W Fitch, del. et lith.

Vincent Brooks, Imp

TAB. 5446.

DENDROBIUM INFUNDIBULUM.

Funnel-lipped Dendrobium.

Nat. Ord. ORCHIDACEÆ.—GYNANDRIA MONANDRIA.

Gen. Char. (*Vide supra*, TAB. 5303.)

DENDROBIUM *infundibulum*; foliis lanceolatis angustis acutis, sepalis linearioblongis, petalis oblongis obtusis triplo latioribus, mento infundibulari pedicello æquali. labello lobis lateralibus rotundatis integris, intermedio serrulato emarginato. *Lindl.*

DENDROBIUM infundibulum. *Lindl. in Linn. Soc. Trans. Batem. in Gard. Chron.* 1862, *p.* 1194.

Not having seen this noble plant in a recent state, I rely wholly on Mr. Bateman's determination of the species, and on his remarks, as follows:—"The other day, while looking through the Nursery of Messrs. Low and Son, at Clapton, I was shown living plants and dried specimens of a *Dendrobium*, which had been recently imported by the firm from Moulmein, and to which they had given provisionally the name of *D. Moulmeinense*, under which designation it is already to be found in several collections. I thought the plant was undescribed, but on looking over Professor Lindley's 'Contributions to the Orchidology of India,' I at once recognized in that able botanist's description of *D. infundibulum* (transcribed above) the very plant that Messrs. Low had distributed under the name of *D. Moulmeinense*, and which they have the honour of being the first to import alive. It is a species of surpassing beauty, and promises to more than rival its nearest relative, *D. formosum*. A dried flower that is now before me measures, when laid flat, four inches across; and that such glorious blossoms are produced in the greatest profusion is evidenced by the withered flower-stalks that crowd the tops of the imported stems."

"The Rev. Mr. Parish, from whom Messrs. Low received the plant, found it flowering in February, upon the mountains of Moulmein, where it seems also to have been discovered in a

former year, at the height of five thousand feet, by Mr. Lobb. Mr. Parish mentions that he had forty-four blossoms open at one time upon some plants that he kept in a small basket, and adds that they continued a very long time in perfection." *J. Bateman.*—I fear that here, as in the case of *D. barbatulum*, the form and size of the sepals are liable to considerable variation.

"This plant, like all the other *Dendrobia* belonging to Dr. Lindley's nigro-hirsute section of the genus, is very impatient of stagnant moisture, although it can hardly have too much water, provided the same passes freely away. To effect this, it should be placed in a pot filled with little else than broken potsherds mixed with some chopped sphagnum and a morsel of fibrous peat. It likes a good heat."—*J. B.*

Fig. 1. Column, spur, and ovary. 2. Pollen-masses. 3. Front view of the lip:—*magnified.*

W Fitch del et lith

Vincent Brooks Imp

TAB. 5447.

ÆCHMEA DISTICHANTHA.

Distichous-flowered Æchmea.

Nat. Ord. BROMELIACEÆ.—HEXANDRIA MONOGYNIA.

Gen. Char. Bracteæ sub singulo flore cyathiformes. *Perigonii* superi, sexpartiti; *laciniæ* exteriores calyculatæ, æquales, spiraliter convolutæ, aristatæ v. muticæ, apice hinc oblique dilatatæ; *interiores* petaloideæ, *exterioribus* multo longiores, inferne convolutæ, basi intus squamosæ v. rarius nudæ. *Stamina* 6, imo perigonio inserta; *filamenta* filiformia, tria laciniarum interiorum basi adnata; *antheræ* ovatæ, dorso affixæ, subincumbentes. *Ovarium* inferum, triloculare. *Ovula* plurima, e loculorum angulo centrali pendula, anatropa. *Stylus* filiformis; *stigmata* 3, linearia v. petaloidea, spiraliter convoluta. *Bacca* ovato-subglobosa, triloculares. *Semina* plura, ex apice loculorum pendula: *testa* coriacea, fusca, umbilico filo brevi gracili appendiculato. *Embryo* minimus, rectus, in basi albuminis dense farinacei, extremitate radiculari umbilicum attingente, supera.—Herbæ *Americanæ tropicæ, sæpe in arborum truncis pseudoparasiticæ*: foliis *radicalibus ligulatis v. ensiformibus, crassis, coriaceis, integerrimis v. spinuloso-serrulatis*; scapo *ramoso, paniculato*; rachi *flexuosa*; bracteis *sub singulo flore cyathiformibus, spinoso-aristatis, integerrimis v. tricrenatis*; floribus *terminalibus abortivis. Endl.*

ÆCHMEA *distichantha*; foliis e basi dilatata amplexantibus bipedalibus linearioblongis elongatis glaucescentibus elongatis acuminatis canaliculatis, aculeis uncinatis atris remotis spinescentibus, scapo foliis breviore colorato folioso apice paniculato-spicato, ramis spicatis copiose bracteatis distichis, bracteis rubris copiosis, floribus etiam distichis, sepalis erectis imbricatis roseis, petalis purpureis, singulo intus bisquamuloso, staminibus 6, filamentis sursum clavatis.

ÆCHMEA distichantha. *Lemaire, Jard. Fleuriste, v.* 3. *p.* 269 *cum icon.*

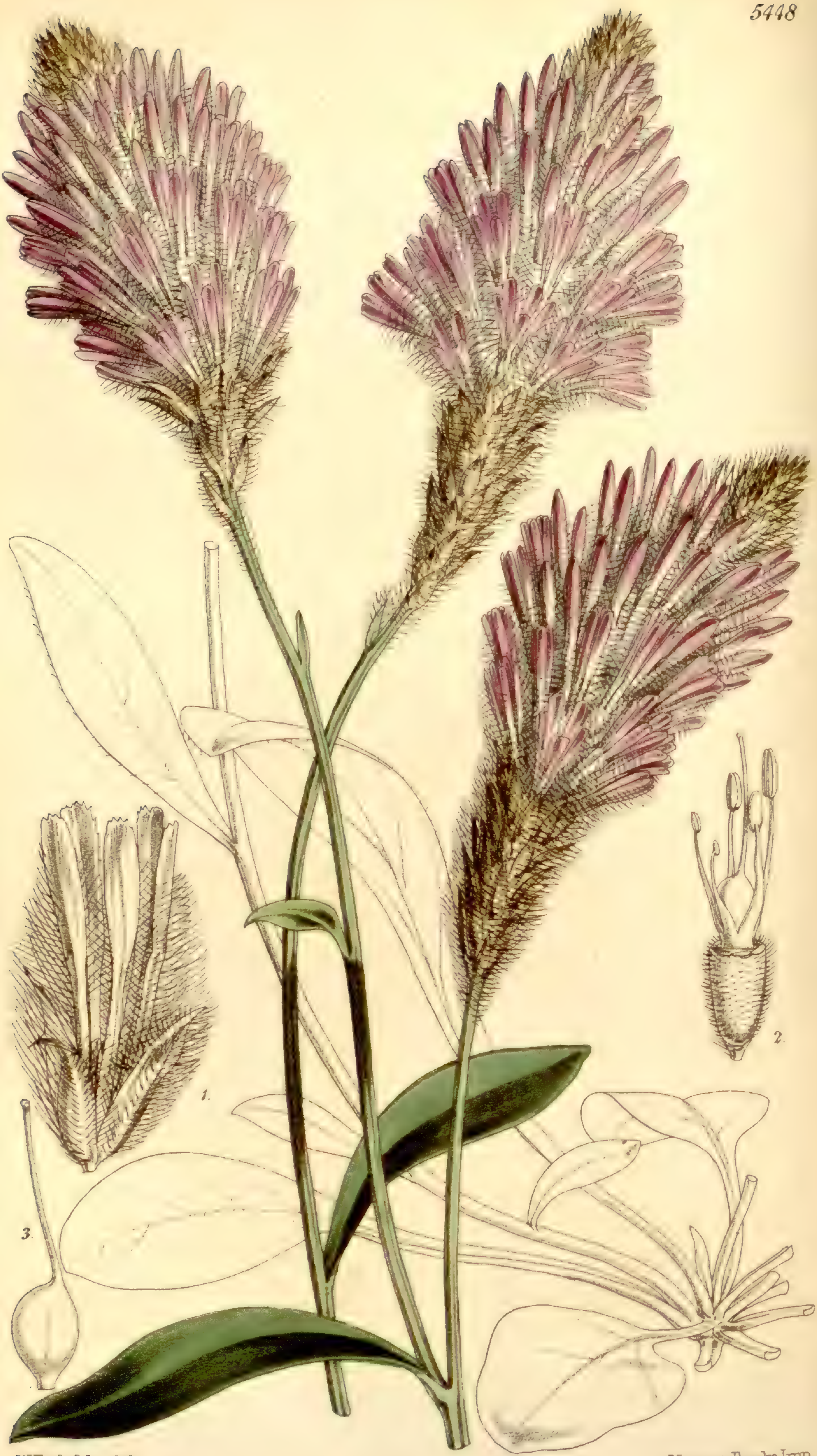
BILBERGIA? polystachya. *Paxt. Fl. Gard. v.* 3. *t.* 80.

HOPLOPHYTUM distichanthum. *Beer, Bromel. p.* 136.

A South American Bromeliaceous plant, from the province of St. Paul (South Brazil, we presume); a family which stands in great need of scientific examination, instead of being left to the tender mercies of mere horticulturists, who contribute

little to the correct knowledge of either generic or specific differences, but who are, nevertheless, instrumental in importing plants which can hardly be described except from living cultivated specimens.

Fig. 1. Flower. 2. Petals and scales, with a stamen. 3. Stamen. 4. Pistil :— *magnified.*



W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5448.

TRICHINIUM Manglesii.

Mr. Mangles's Trichinium.

Nat. Ord. Amaranthaceæ.—Pentandria Monogynia.

Gen. Char. Flores hermaphroditi, tribracteati. *Calyx* 5-sepalus; *sepalis* æqualibus aut inæqualibus (duobus exterioribus majoribus), erectis, apice demum divaricatis, villoso-plumosis. *Stamina* 5, inferne in cupulam vel rarissime in tubum coalita. *Filamenta* filiformia v. dilatato-subulata. *Staminodia* nulla. *Antheræ* biloculares, ellipticæ v. subrotundæ. *Ovarium* uniloculare, uniovulatum. *Stylus* elongatus. *Stigma* simplex, capitatum. *Fructus* (utriculus) obovatus v. ovatus, evalvis, monospermus; *sepalis* inferne conniventibus et apice plumosus, inclusus. *Albumen* farinaceum, centrale. *Embryo* annularis, pericus; *radicula* ascendente.—Herbæ *perennes vel annuæ, raro* suffrutices, *Australiacæ, interdum Capenses, intra vel extra tropicos observatæ.* Folia *alterna, rarissime opposita vel fasciculata.* Flores *terminales, in capitula v. in spicas congesti, tandem avolantes juvante calyce patuloso-plumoso.* Bracteæ *carinatæ, scariosæ, nitentes, coloratæ, persistentes, lateralibus interdum cum fructu deciduis.* Pili *florum articulati, oblique erecti.* Stamina *sæpius inæqualia et ovarium oblique gibbosulum. Moq. in De Cand.*

Trichinium *Manglesii;* caulibus herbaceis adscendentibus simplicibus sulcatis striatis glabriusculis virescentibus, foliis radicantibus longe petiolatis oblongo-spathulatis mucronulatis margine sinuatis glabris viridibus, caulinis lanceolato-linearibus aut linearibus roseis, calyce bracteis fere duplo longiore, sepalis uninerviis apicem versus nitidulis, pilis calyce brevioribus sat numerosis rigidis albis.

Trichinium Manglesii. *Lindl. Bot. Reg.* 1839, *n.* 28, *in not. Field. Sert. Plant. t.* 52. *Moq. in De Cand. Prodr.* 13. *part* 2. *p.* 289.

Trichinium macrocephalum. *Nees, in Lehm. Pl. Preiss. v.* 1. *p.* 627 (*not Br.*).

Few more lovely plants have been introduced to our gardens of late years than the one here represented, from our friend Mr. Thompson, of Ipswich. It is one of the many Swan River species which he has been instrumental in importing, and successful in its cultivation. At present it has been, I apprehend, only treated as a greenhouse plant; but there is no reason why it should not be employed as a summer annual, as are many Australian plants, and others from South Africa, to the great

advantage of our flower-borders. Forty-nine species of the genus *Trichinium* are known to science; but none is more beautiful than the present, unless it be *T. spectabile*, Field. l.c. t. 289; and that is considered by Moquin as probably a short and broad spiked var. of the present, with narrow leaves.

Fig. 1. Flower. 2. Stamens and pistil. 3. Pistil:—*magnified.*

W Fitch, del. et lith

Vincent Brooks, Imp.

Tab. 5449.

CATTLEYA Lindleyana.

Dr. Lindley's Cattleya.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala membranacea vel carnosa, patentia, æqualia. *Petala* sæpius majora. *Labellum* cucullatum, columnam involvens, trilobum vel indivisum. *Columna* clavata, elongata, semiteres, marginata, cum labello articulata. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem replicatis.—Herbæ *epiphytæ (Americanæ), pseudobulbosæ.* Folia *solitaria vel bina, coriacea.* Flores *terminales, speciosissimi, sæpe e spatha magna erumpentes. Lindl.*

Cattleya *Lindleyana;* pseudobulbis cauliformibus elongatis aggregatis teretibus articulatis, articulis bracteato-spathaceis albidis mono-diphyllis, foliis lineari-lanceolatis, floribus solitariis terminalibus sublonge pedunculatis, sepalis lineari-lanceolatis, petalisque iis latioribus albis, labello amplo obscure trilobo albo pallide luteo purpureoque tincto, lobo intermedio subrotundo concavo medio linea purpurea maculato.

Cattleya Lindleyana. *Batem. in Herb. Hook.*

This, which we cannot find to be anywhere described, was lately sent to us from Bahia, by our valued correspondent C. H. Williams, Esq. In aspect it much resembes *Lælia;* but the pollen-masses are four and not eight. It flowered with us in September, 1863, not long after the plant was imported.

June 1st, 1864.

5451.

1.

2.

3.

W Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5450.

THIBAUDIA sarcantha.

Fleshy-flowered Thibaudia.

Nat. Ord. Vaccinieæ.—Decandria Monogynia.

Gen. Char. Calyx semiadhærens, tubuloso-urceolatus, brevis, subcoriaceus, *limbo* 5-partito, partitionibus dentiformibus erectis persistentibus. *Corolla* tubuloso-urceolata, 5-dentata, carnosa. *Stamina* 10; *filamenta* brevia, compressa, linearia, glabra, nunc libera, nunc monadelpha. *Antheræ* elongatæ, biloculares, basi liberæ, medio adnatæ, superne liberæ furcatæ, id est loculi superne segregati in tubulos vacuos elongati, rima longitudinali dehiscentes. *Discus* epigynus, subinteger, obsolete 5-dentatus, vel 5-gonus. *Bacca* subglobosa, subangulosa, truncata, calycis limbo carnoso-coriaceo 5-partito coronata, 5-locularis, loculis polyspermis.—Frutices; caules *erecti diffusique, ramosissimi.* Gemmæ *floriferæ axillares terminalesque*, bracteis *squamosis coriaceis subrotundis imbricatis tectæ.* Folia *alterna, coriacea, sempervirentia, breviter petiolata*, petiolis *sæpe contortis, sæpius integerrima, interdum denticulata vel serrata.* Flores *racemosi vel subumbellati*, pedicellis *unifloris bibracteatis, sæpe cernuis interdum secundis.* Gemmæ, squamæ, bracteæ, racemi, calyces, corollæ *et* baccæ *sæpe rubicundi coloris.* Baccæ *sapore grato acido donatæ. De Cand.*

Thibaudia *sarcantha;* ramis teretibus pendulis, foliis carnoso-coriaceis oblongo-ovatis acuminato-acutis 3–5-venosis, corymbis lateralibus terminalibusque, floribus uncialibus, pedicellis clavatis calycibusque in pedicello articulatis campanulatis 5-dentatis viridibus, corolla insigniter carnosa urceolata, tubo subgloboso rubro, limbo contracto flavo-viridi 5-dentato, dentibus erectis brevibus.

Psammisia sarcantha. *Batem. in litt.*

Psammisia sclerophylla. *Planch. et Linden, Fl. des Serres, v.* 8. *p.* 205. *t.* 825?

A most charming Vacciniaceous plant, we believe imported from New Granada, cultivated by Mr. Bateman, and exhibited at one of the late spring meetings of the Royal Horticultural Society at Kensington Gardens by that gentleman, whence the specimens were sent to be figured. The *Psammisia sclerophylla*, Kl. in Linnæa, v. 24. p. 42, *Thibaudia*, Kth. et auct., Planch. et

Lind. Fl. des Serres, v. 8. p. 205. t. 825, very much resembles our plant, but the branches are there erect, and the corymbs only drooping.

Fig. 1. Flower and pedicel. 2. Calyx and pistil. 3. Stamen :— *magnified.*

2

1

W. Fitch, del et lith

Vincent Brooks, Imp

Tab. 5451.

DENDROBIUM Farmeri, var. *aureo-flava.*

Mr. Farmer's Dendrobium; golden-yellow var.

Nat. Ord. Orchideæ.—Gynandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *Farmeri;* caulibus elongatis clavatis articulatis profunde quadrisulcatis et obtuse 4-angulatis apice foliosis, foliis 2–4 ovatis coriaceis striatis, racemis lateralibus multifloris pendulis, bracteis parvis ovatis concavis, sepalis (albis roseo tinctis) late ovatis obtusis, petalis conformibus (ejusdemque coloris) majoribus, labello (albo disco luteo) rhomboideo obtusissimo unguiculato supra pubescente margine subintegerrimo.

Dendrobium Farmeri. *Paxt. Mag. of Bot. p.* 15, *cum Ic. Hook. Bot. Mag. t.* 4659.

Var. β. aureo-flava; sepalisque intense flavis, labello aureo. (Tab. Nostr. 5451.)

During the course of last year (1863), accompanied by specimens of the plant alluded to for the Royal Gardens, and for Mr. Lowe, of Clapton, the following note was received from the Rev. S. P. Parish, of Moulmeine:—"What if I were to say that *Dendrobium Farmeri* (see our Tab. 4659) and *D. chrysotoxum* (our Tab. 5053) were one and the same? I know both of them extremely well, having had them growing for three years. There is no mistaking the two without the flowers. Two days ago, on going down into my garden, I was astonished, and could hardly believe my eyes, at seeing a panicle of the golden flowers of *D. chrysotoxum* proceeding from the bulbs of *D. Farmeri!*—the only difference being that the labellum is here rather pointed, and not so round as in *D. chrysotoxum.*" Dr. Lindley, too, has a remark, or rather offers a conjecture, somewhat to the same effect, when he says, in his 'Contributions to the Orchidology of India,'* "*D. Farmeri* is scarcely distinct from *D. chrysotoxum,*

* 'Journal of the Proceedings of the Linnean Society of London,' vol. 3. p. 7.

although its flowers are tinged with pink, and its lip less abundantly fringed." I fear both one and the other of these botanists have placed too much confidence in *colour* in the present case; for not only is the nature of the pseudobulb quite different (multangular in *D. chrysotoxum*, deeply quadrangular in *D. Farmeri*), but the curious deep velvety fringe of the lip of *D. chrysotoxum*, well represented both by Dr. Lindley, Bot. Reg. 1847, t. 36. f. 1, and by myself, Bot. Mag. t. 5053, f. 2, has nothing resembling it in the labellum of *D. Farmeri*. This I take therefore to be a yellow-flowered variety of the latter, and quite distinct from *D. chrysotoxum*.

Fig. 1. Column and anther. 2. Front view of the labellum :—*magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5452.

DESMODIUM Skinneri, var. *albo-lineata*.

Mr. Skinner's Desmodium, white-lined var.

Nat. Ord. Leguminosæ.—Diadelphia Decandria.

Gen. Char. Calyx basi bibracteolatus, ad medium obscure bilabiatus, labio superiore bifido, inferiore tripartito. *Corolla* papilionacea, vexillo subrotundo, carina obtusa, non truncata, alis carina longioribus. *Stamina* diadelpha (9 et 1), *filamentis* subpersistentibus. *Legumen* constans articulis plurimis ad maturitatem secedentibus compressis monospermis membranaceis coriaceisve, non aut vix dehiscentibus.—Herbæ *aut* suffrutices, *plerique æquinoctiales*. Folia *nunc* 3-*foliata seu* 1-*juga cum impari, nunc simplicia dicta nempe ad impar foliolum reducta ideo unifoliolata*. Stipellæ 2 *ad basim folioli extremi*, 1 *ad quodque laterale*. Racemi *terminales sæpius laxi*. Pedicelli 1 *aut sæpius* 3, *ex bractearum axillis orti, filiformes, uniflori*. Flores *purpurei cærulei aut albi, minores quam in* Hedysaro. *De Cand.*

Desmodium *Skinneri;* pubescenti-hirsutum, suffruticosum, caule scandente, foliis trifoliolatis, foliolis lato-lanceolatis, terminali longe petiolata, racemis elongatis subpaniculatis axillaribus terminalibusque, floribus intense purpureis, vexillo macula alba biloba, calycibus ciliatis, ovario oblongo hirsuto.

Desmodium Skinneri. *Benth. in Herb. Hook.*

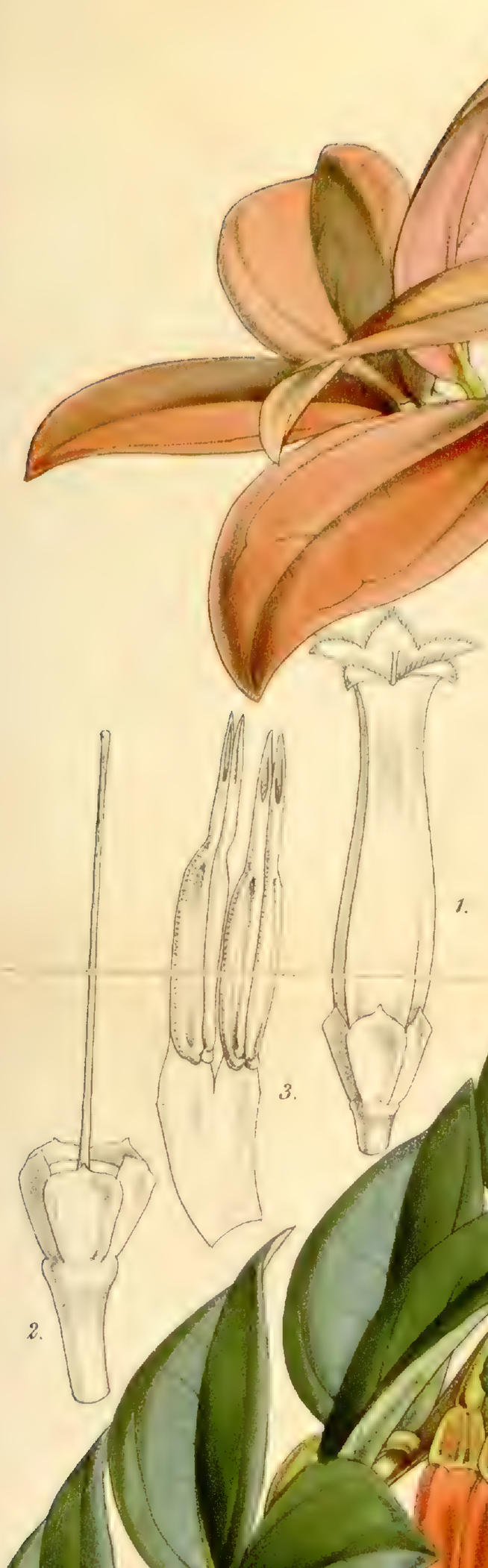
Var. *β*. albo-nitens. (Tab. Nostr. 5452.)

Rhynchosia albo-nitens. *Hort. Verschaff.*

A very pretty climber, received at the Royal Gardens of Kew under the name recorded last from Mr. Verschaffelt; but it appears to correspond with a Guatemala plant named by Mr. Bentham as a *Desmodium*, and in compliment to its discoverer, of which specimens are preserved in the Hookerian herbarium. If it be truly the *Desmodium Skinneri* of Mr. Bentham, the young pods are very flat, curved and sickle-shaped, one inch long, three to four lines broad, of one or two joints, one to two-seeded. Trained along the rafters of the stove, the effect of the flowers is very pretty.

Fig. 1. Flower. 2. Calyx and pistil. 3. Vexillum. 4. Alæ and carina:—*magnified.*

June 1st, 1864.


1.
2.
3.

Tab. 5453.

MACLEANIA speciosissima.

Splendid. Macleania.

Nat. Ord. Vaccinieæ.—Decandria Monogynia.

Gen. Char. Macleania, *Hook.* *Calyx* truncatus, obsoletissime 5-dentatus, 5-alatus, inferne ovario adhærens. *Corolla* cylindracea, non raro angulata, limbo 5-fido. *Stamina* 10, basi corollæ inserta, *filamentis* per totam longitudinem in urceolum connatis. *Antheræ* basi affixæ, dorso muticæ, apice in tubum simplicem attenuatæ, et rimula singula introrsum dehiscentes. *Ovarium* quinqueloculare, multiovulatum.—Frutices *Americæ tropicæ Andinæ*, *habitu* Thibaudiæ. Folia *coriacea, integerrima, trinervia.* Flores *speciosi fasciculati vel racemosi.*

Macleania *speciosissima;* fruticosa, ramis elongatis pendentibus, foliis ovatis obtusis distichis brevipetiolatis trinerviis, floribus copiosissimis fasciculatis nutantibus, calycis tubo 5-alato; corollis 12–14 lineas longis tubuloso-suburceolatis 5-angulatis, limbi lobis parvis subpatentibus.

Thibaudia elliptica. *Hort. Lind. (fide Bateman), non Ruiz et Pav.*

Rarely have we seen a more lovely flowering shrub than that we have now the satisfaction to figure, from a specimen sent to us by James Bateman, Esq., from his collection at Biddulph Grange, Congleton, after having attracted much attention at one of the Exhibitions of the Royal Horticultural Society at Kensington Gore, in April of the present year. By that gentleman it was received from Mr. Linden, under the name of "*Thibaudia elliptica;*" but it certainly is not that plant of Ruiz and Pavon, but is clearly a species of *Macleania*, yet not according with any of the ten species of that genus given by Dr. Klotzsch in his classification of the group of "*Bicornes*," published in the 24th vol. of the 'Linnæa,' for 1851. It is stated to be a native of Columbia, and its nearest affinity is perhaps with our *M. angulata*, Bot. Mag. t. 3979, and, though less so, with our *M. floribunda*, Ic. Plant. Rar. v. 2. t. 109. Our specimen was accompanied by the following note from Mr. Bateman:—"I received

the plant in 1859 from Mr. Linden, of Brussels. It requires the heat of a warm greenhouse, and should be placed in a *large* pot, which ought to stand on a bracket or shelf near the glass; in this way the branches will hang down gracefully, and flower abundantly."

Descr. A straggling *shrub*, of some few feet in the spread of its branches, which are much elongated and pendent, well clothed with coriaceous, distichous, evergreen *leaves*, two inches or rather more in length, ovate or oblong-ovate, shortly petiolate, obtuse, entire, with three principal nerves, thick and coriaceous; young *leaves* particularly delicate, semipellucid, purplish-red. The *flowers* are all drooping, most copious, in fascicles from beneath the leaves of the pendent branches, and in a measure concealed by them. *Peduncles* half to three-quarters of an inch long, clavate, and on the apex of these the calyx is articulated, five-winged, minutely five-toothed, with the tube incorporated with the ovary, purplish-green. *Corolla* nearly an inch and a quarter long, bright scarlet, yellow towards the mouth, tubular, but contracted below the small limb, so as to be tubuloso-ventricose, longitudinally five-angled; the limb is of five small, acute, slightly spreading ciliated lobes. *Stamens: filaments* five, broad-oblong, slightly coadunate. *Anthers* large, oblong, two-celled, tapering upwards into a long tube, and opening each by one pore or slit at the apex (our artist has by mistake represented two). *Style* nearly as long as the corolla, slender; *stigma* obtuse. *Fruit* globose, waxy and subpellucid.

Fig. 1. Flower. 2. Summit of the peduncle, calyx, and pistil. 3. Two of the anthers (the filaments forming part of the staminal tube):—*more or less magnified.*

1.

2.

3.

4.

W. Fitch, del. et lith

Vincent Brooks, Imp

Tab. 5454.

DENDROBIUM MARGINATUM.

White-margined Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *marginatum;* caulibus erectis pedalibus et ultra articulatis angulatis, apice præcipue foliosis, foliis lineari-lanceolatis, floribus lateralibus geminatis albis, sepalis lanceolatis, petalis paulo latioribus brevioribus, labello unguiculato subpanduriformi trilobo, lobis lateralibus erectis intus cinnabarinis, labio medio suborbiculari undulato, disco cinnabarino albo-marginato.

Dendrobium marginatum. *Batem. ms.*

This very pretty *Dendrobium* was obligingly sent to us, in April of the present year, by Sigismund Rucker, Esq., from his fine collection at West Hill, Wandsworth, with the name here adopted. It would be easy to refer to nearly allied species of this now extensive genus, especially to the *Dendrobium heterocarpum*, Wall. and Lindley, figured at our Tab. 4970, and its several varieties there noticed, some of which are remarkable enough, and this should perhaps rank as one of them. It is a native of Moulmein, and was discovered by the Rev. C. S. P. Parish and sent to Messrs. Hugh Low and Co.

Descr. The *stems*, for they can scarcely be called pseudobulbs, grow in clusters a foot and more long, are rather thicker than a swan's quill, jointed (the joints slightly sheathing), angled; the younger ones bearing a few sparse linear-lanceolate *leaves* towards their extremity. *Flowers*, from the joints of the old stems, also towards the upper part, generally in pairs, from one short *peduncle*. *Sepals* and *petals* pure white, the former lanceolate, the latter nearly ovate, much spreading. *Lip* moderately large, tapering below into a long *claw*, as long as the *spur*, three-lobed;

side lobes large, erect, spotted with deep orange; the *disk* has three elevated ridges, the *terminal lobe* is subrotund, waved, obtuse, with a cinnabar-orange disk and a white margin, whence, probably, the specific name. *Column* rather short, the truncated *anther-case* sunk, as it were, in the *clinanthium*. *Pollen-masses* four.

Fig. 1. Lip and spur. 2. Column, spur, and base (only) of the labellum. 3. Front view of the labellum. 4. Pollen-masses:—*all more or less magnified.*

W Fitch del.et Lith

Vincent Brooks Imp

Tab. 5455.

MICRANTHELLA Candollei.

De Candolle's Micranthella.

Nat. Ord. Melastomaceæ.—Decandria Monogynia.

Gen. Char. Micranthella, *Naud.* *Flos* pentamerus. *Calycis* campanulati vel oblongi *dentes* acuti, persistentes. *Petala* obovata, apice rotundata, ciliolata. *Stamina* 10, parum inæqualia, conformia, *antheris* lineari-subulatis aut oblongis 1-porosis, *connectivo* infra loculos magis minusve producto et in insertione filamenti sæpius bitesticulato. *Ovarium* basi adhærens, 5-loculare. *Stylus* filiformis, *stigmate* punctiformi. *Capsula* 5-valvis; *semina* cochleata.—Herbæ vel *suffrutices austro-Americani et Mexicani, sæpius ramosi, varie pilosi, micranthi et submicranthi;* foliis *petiolatis ovatis ovatove-oblongis;* floribus *paniculatis aut glomeratis, nunquam cernuis, purpureis albis flavis aut aurantiacis.** *Naud.*

Micranthella (Chætogastroideæ†) *Candollei;* fruticosa, ferrugineo-villosa, pro genere macrophylla, ramis teretibus, foliis petiolatis ovatis acuminatis obsolete serrulatis vel subintegerrimis 5-nerviis, utraque pagina rufescenti-villosis, paniculis terminalibus brevibus confertifloris et multifloris, floribus rubris aut violaceis. *Naud.*

Micranthella Candollei. *Naud. in Ann. des Sc. Nat. Ser.* 3. *v.* 13. *p.* 352.

Chætogastra mollis. *De Cand. Prodr. v.* 3. *p.* 134.

Rhexia mollis. *Bonpl. Rhex. t.* 19.

A very pretty Melastomaceous plant, of which dried specimens only were known in our collections till our zealous horticultural and botanical friend Isaac Anderson Henry, Esq., of Hay Lodge, Trinity, Edinburgh, sent us in May, 1864, from his garden flowering specimens, raised from seeds sent by the Professor Jamieson, of Quito. This latter gentleman had long previously

* M. Naudin further observes on this:—"Genus fere omnino artificiale imo et subheterogenum; *Lasiandræ, Chætogastræ*, et *Oreocosmo* æqualiter affine, nulli tamen apto conjungendum. Præcipui characteres in parvitate florum (si generum proximorum floribus comparentur), inflorescentia et habitu resident."

† "Antheræ oblongæ sed non vere subulatæ ut in sectione præcedenti ('*Genuinæ*'), connectivo infra loculos brevissimo et bilobo, aut subnullo."

received specimens from the Andes, gathered at elevations of from 9000–10,000 feet, and more recently from Mr. Spruce, n. 5833. We have the same from M. Triana, from New Granada, and from Ruiz and Pavon's herbarium, gathered in the Andes above Lima, in Peru, and from the late Mr. M'Lean, from the same locality. It is well suited for greenhouse cultivation.

Descr. A much branching *shrub*, with opposite *branches* and *leaves*, the whole plant, save the petals, covered with a dense mass of close-placed hairs, rusty-coloured when dry. *Leaves* about three inches long, petiolate, ovate-oblong, entire, 5-nerved; the *nerves* united by obliquely transverse *veins*. *Panicles* terminal, leafy below. *Calyx* hispid, with subulate, spreading bristles, turbinate, crowned by five spreading, broad, subulate *lobes*. *Stamens* ten, nearly equal, obliquely obovate, purple. *Pistil: ovary* free, ovate, hispid above. *Style* filiform, longer than the ovary. *Stigma* obtuse.

Fig. 1. Calyx and pistil. 2. Petal. 3. Stamen. 4. Pistil:—*more or less magnified.*

W. Fitch, del et lith

Vincent Brooks, Imp.

Tab. 5456.

MECONOPSIS ACULEATA.

Prickly Meconopsis.

Nat. Ord. Papaveraceæ.—Polyandria Monogynia.

Gen. Char. Sepala 2. *Petala* 4. *Stamina* ∞. *Ovarii placentæ* 4–∞, nerviformes vel plus minus intromissæ ; *stylus* distinctus, *stigmatis* depresso-dilatati vel clavati *lobis* deflexo-radiantibus placentis appositis. *Capsula* ovoidea, oblonga vel breviter sublinearis, *valvis* brevibus, placentas cum stylo persistentes nudantibus dehiscens. *Semina* scrobiculata, *raphe* cristata vel nuda.—Herbæ *perennantes v. rarius annuæ, succo flavo.* Folia *integra vel sæpius lobata vel dissecta.* Flores *longe pedunculati, speciosi, flavi purpurei vel cærulei*, alabastris *nutantibus. Benth. et Hook.*

Meconopsis *aculeata ;* sparse hispido-aculeata, foliis radicalibus cordatis ovatisve varie lobatis, caulinis oblongis pinnatifidis, omnibus varie lobulatis, floribus racemosis bracteatis purpureo-cæruleis, capsulis brevibus setoso-echinatis.

Meconopsis aculeata. *Royle, Ill. Pl. Himal. p.* 67. *t.* 15 (the flowers represented red, in consequence, no doubt, of the colour being taken from dried specimens). *Wall. Cat. n.* 8122. *Hook. et Thoms. Fl. Ind. p.* 253.

We had the good fortune to have this rare and charming plant flowering in the open border, in the month of June of the present year (1864). Seeds were obligingly sent to us during the previous year, by our friend Dr. Cleghorn, from North-western India. It is a native of the high mountains of Kumaon (*Wallich*), at an altitude of 11,000 feet, of Sirmur (*Royle*), Kunawar (*Munro*), and Zanshar and Kishtwar, in Kashmir, at an elevation of 10–14,000 feet above the level of the sea (*Winterbottom*). Of the very handsome genus *Meconopsis*, one species inhabits Western Europe, *M. Cambrica*, extending as far north as Britain, two belong to North-west America, and six are natives of Himalaya, of which one, our *M. Wallichii*, has appeared in the Tab. 4668 of the present work, and two, *M. simplicifolia* and *M. Nepalensis*, are figured in Dr. Hooker's 'Illustrations of

Himalayan Plants.' The latter species, with yellow flowers, having lately blossomed in the Royal Gardens, will at no very distant period be given in our pages. All of these are remarkable for the size to which they attain as compared with our European and North-American species, and especially that of the blossoms.

Descr. *Root*, according to Dr. Royle, long and tapering, probably therefore perennial. *Stem* herbaceous, one to two feet high, scarcely branched, clothed, as is the whole plant (except the petals), with patent rigid hair-like prickles. *Leaves* very variable; the outermost, and most radical in our plant, are cordate, somewhat five-lobed, and more or less incised; the next to them are oblong-ovate in circumscription, with deeper but more acute lobes, while the stem-leaves are narrow-oblong, deeply pinnatifid, with the segments variously lobed and incised, then pass gradually upwards into *bracteas*, which only differ from the cauline leaves in their smaller size: all are petioled, the radical ones the most so. The *flowers* measure more than two inches across, and form a long *raceme*, of which the upper ones expand first; they are solitary in the axils of the *floral leaves* or *bracts*. *Petals* a rich purple-blue colour. *Stamens* numerous, forming a bright golden eye to the flower by the rich colour of their compact *anthers*. *Ovary* oval, hispid, with erect prickles. *Style* columnar; *stigma* capitate.

Fig. 1. Pistil. 2. Transverse section of the same:—*slightly magnified.*

2.

1.

3.

4.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5457.

CYMBIDIUM TIGRINUM.

Spotted-lipped Cymbidium.

Nat. Ord. Orchideæ.—Gynandria Monogynia.

Gen. Char. Perianthium explanatum, *petalis sepalis*que subæqualibus liberis. *Labellum* sessile, liberum, ecalcaratum, concavum, cum basi columnæ nunc articulatum, nunc leviter connatum, indivisum vel trilobum. *Columna* erecta, semiteres. *Antheræ* biloculares. *Pollinia* 2, sæpius postice biloba, in *glandulam* subtriangularem subsessilia. *Lindl.*

Cymbidium *tigrinum;* pseudobulbis aggregatis subrotundis ovatisve striatis, vetustis foliorum delapsorum basibus quasi-operculatis, foliis subsolitariis oblongo-lanceolatis parum tortuosis acutis, scapo radicali, bracteato subtrifloro; sepalis petalisque conformibus linearibus patenti-incurvis, labello longe unguiculato trilobo albo purpureo-maculato, lobis lateralibus erectis, intermedio lato-oblongo apiculato; basi callis duobus; columna elongata semiterete.

Cymbidium tigrinum. *Parish, ms.*

This is but one of many new Orchidaceous plants sent from the Malay Peninsula to Messrs. Lowe, of the Clapton Nursery, by the Rev. C. S. P. Parish. It was detected by that gentleman in 1863, upon rocks in the Tenasserim mountains, at an elevation of 6000 feet above the level of the sea, and the plants were accompanied by a faithful drawing from his pencil. Mr. Bateman remarks, "the compact pseudobulbs, and its few-flowered spikes, are very unlike anything in the genus with which I am acquainted."

I have here adopted Dr. Lindley's character for the genus *Cymbidium*, but what are its limits I do not understand. That author, in 1840, enumerated in his 'Genera et Species Orchidearum,' forty species. Reichenbach, fil., seems to have reduced them to nineteen, in Walpers' 'Annales Botanices Systematicæ.'

Descr. *Pseudobulbs* clustered, as large as walnuts, subrotund or ovate, scarred at the top, in the old ones, by the persistent bases of the fallen leaves. *Leaves* three to four inches long, one

to three or four from the summit of the young *pseudobulb*, oblong-lanceolate, slightly twisted, subcoriaceous. *Scape* radical, about a span long, bracteated, with four to six lanceolate, sheathing *scales*. *Ovary* pedunculiform, one inch and a half long. The spread of the *flower* is considerable, but the floral coverings are narrow. *Sepals* much divaricated, linear or linear-oblong, yellow-green, indistinctly speckled with red; *petals* conform with them, but erect and nearly parallel with the upper sepal, slightly incurved. *Lip* large, broad-oblong, tapering below into a long claw, three-lobed; side-lobes rounded, erect, purple within; middle lobe broad-oblong, quite white, barred transversely with short streaks of dark purple: there are a few elevated callous lines at its base. *Column* much elongated, clavate, incurved. *Pollen-masses* two, transverse, each two-lobed, and attached to a large triangular *gland*.

Fig. 1. Labellum. 2. Column and upper portion of the ovary. 3. Front; and 4. Back view of a pollen-mass, with its large triangular gland:—*more or less magnified.*

3. 2. 1. 4. 5.

W Fitch del et lith

Vincent Brooks Imp

Tab. 5458.

CORYLOPSIS SPICATA.

Spiked Corylopsis.

Nat. Ord. Hamamelideæ.—Pentandria Digynia.

Gen. Char. Corylopsis, *Sieb. et Zucc.* *Calyx* adnatus, quinquefidus, laciniis subinæqualibus. *Corolla* calyci inserta, pentapetala, regularis, *petalis* spathulatis. *Stamina* 5, libera, calyci inserta. *Squamæ* 5, stylos intra stamina cingentes. *Ovarium* inferum, biloculare, *ovulo* unico pendulo in quovis loculo. *Styli* 2, stigmatibus subcapitatis. *Capsula* semisupera, bilocularis, bivalvis, *valvis* septicidis.—Frutices *Japonici*, foliis *alternis petiolatis stipulatis basi cordatis vel rotundatis subinæquilateris acutis vel cuspidatis repando-serratis, serraturis setaceo-mucronatis, costato-venosis, deciduis ;* gemmis *porulatis foliiferis vel mixtis ;* floribus *præcocibus, in* spicas *amentaceas simplices nutantes dispositis. Sieb. et Zucc.*

Corylopsis *spicata ;* foliis e basi subcordata late obovatis acutiusculis repando-dentatis, dentibus setaceis, floribus in racemos simplices 8–12-floros dispositis, calycis laciniis lanceolatis, petalis oblongo-spathulatis, nectarii squamis bifidis. *Sieb. et Zucc.*

Corylopsis spicata. *Sieb. and Zuccarini, Fl. Japon. p.* 47. *t.* 19.

This interesting Japan shrub, whose pretty drooping spikes have the fragrance (as they have the colour) of *Cowslips*, is now, for the first time, known in cultivation in European gardens. It has been introduced from Yokahama by Messrs. Veitch, of the Royal Exotic Nursery, King's Road, Chelsea. Excellent flowering specimens were sent to us from thence by Messrs. Veitch, the latter end of February of the present year: and we are happy in announcing the introduction of so interesting a shrub, and one whose flowers are doubly welcome, from appearing at so early a season of the year. The shrubs however being deciduous, the *flowers* appear before the leaves, which latter have much the appearance of our nut-bushes, whence the name of the genus.

Descr. *Shrub*, in its native country said to be about three to four feet high, with long petiolated *leaves*, three to four inches long, unequal at the base, cordate, acute rather than acuminate, strongly penniveined, green above, and pubescent, somewhat

hoary beneath with more copious down, the margins mucronato-serrate. *Spikes* of *flowers* two to three inches long, drooping, yellow, bracteated; *bracteas* ample, cordate or ovate, yellow-green, lowest ones the largest and not floriferous, the rest bearing each a single *flower*, which is sessile. *Calyx* with the short, turbinate, downy, tube crowned with five, ovato-lanceolate, subincised, erect *segments*. *Corolla* of five, oblong-spathulate, obtuse or retuse and erect *petals*. *Stamens* five, as long as the petals. Within the stamens are, in our specimens, ten erect oblong subulate *glands*. *Ovary* turbinate, incorporated with the tube of the calyx, two-celled, *cells* one-seeded; *ovules* pendent. *Styles* two, about as long as the stamens. *Stigmata* incrassated, uncinate.

Fig. 1. Flower and bract. 2. Calyx and pistil. 3. Ovary (incorporated with the tube of the calyx) and the 2 styles. 4. Vertical section of the ovary, surrounded by the 10 erect glands. 5. Transverse section of the ovary, with 2 cells, each with its ovule :—*all more or less magnified.*

3.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5459.

DENDROBIUM EBURNEUM.

Ivory-flowered Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *eburneum;* caulibus erectis brevibus robustis foliosis villis deciduis sparse vestitis, foliis coriaceis lanceolatis oblique obtusis, racemis lateralibus vel terminalibus 2–5-floris foliis brevioribus, sepalis petalisque subæqualibus lanceolatis acutis, labelli trilobi lobis lateralibus brevibus rotundatis, intermedio triplo longiore lanceolato apiculato margine crenulato, mento horizontali sepalis vix æquali. *J. B.*

Dendrobium eburneum. *Reichenbach fil. mss.*

This fine *Dendrobium* was found in Moulmeine by Mr. Parish, associated with *D. formosum* and other species, of which figures have already appeared in this work. Messrs. Hugh Low and Co. received living plants of it about two years ago; and one of these having been seen in flower by Professor Reichenbach, he at once distinguished it under the characteristic name of *D. eburneum*, although, so far as we are aware, he has not yet published any technical description of it. The flowers have exactly the appearance of polished ivory, which is relieved by lines of dark Roman red, which occupy the lower portion of the disk of the lip and the base of the column. It seems to flower at irregular periods; and although evidently of easy culture, has not yet bloomed so profusely as the imported stems, many of which, bearing the remains of half-a-dozen racemes, lead us to expect it eventually will do.

Our figure was derived from a specimen that flowered in Mr. Low's collection in the month of April last. (*J. Bateman.*)

Fig. 1. Flower, from which the sepals and petals are removed. 2. Front view of the column and spur. 3. Pollen-masses:—*magnified.*

August 1st, 1864.

W Fitch del et lith.

Vincent Brooks, Imp.

Tab. 5460.

KALANCHOE grandiflora.

Large-flowered Kalanchoe.

Nat. Ord. Crassulaceæ.—Octandria Monogynia.

Gen. Char. Calyx quadripartitus; *laciniis* angustis acutis, subdistantibus. *Corolla* perigyna, hypocraterimorpha, *tubo* cylindraceo, *limbo* quadripartito, patente. *Stamina* 8, imo corollæ tubo inserta, inclusa. *Squamulæ hypogynæ*, lineares. *Ovaria* 4, libera, unilocularia; *ovulis* ad suturam ventralem plurimis. *Capsulæ* folliculares, liberæ, intus longitudinaliter dehiscentes.—Suffrutices *carnosi, in* Africa boreali-orientali *et* Capensi, *in* Asia tropica *et* Brasilia *indigeni;* foliis *oppositis, irregulariter imparipinnatisectis v. ovatis, dentatis, crassis;* floribus *cymoso-paniculatis, laxis, flavis v. rarius rubescentibus aut albidis. Endl.*

Kalanchoe *grandiflora;* glabra, glauca, foliis late obovatis sessilibus trinerviis sinuato-crenatis, cymis terminalibus corymbosis sublaxifloris, sepalis recurvo-patentibus, corollæ segmentis ovalibus apice uncinato-mucronatis.

Kalanchoe grandiflora. *Wall. Cat. n.* 7226. *Wight, Cat. n.* 1174. *Wight et Arn. Prodr. Fl. Penins. Ind. Orient. p.* 359. *Wight, Illustr. v.* 1. *t.* 111.

Kalanchoe Wightiana. *Wall. Cat.* 7225.

The genus *Kalanchoe*, closely allied in general structure to *Bryophyllum* (of which we lately figured a new species at our Tab. 5147), contains nine species, according to De Candolle, not however including our present species, which was first distinguished and named by Dr. Wallich, but clearly characterized by Wight and Arnott, in their 'Prodromus of the Botany of the Madras Peninsula,' and afterwards figured in Wight's 'Illustrations of Indian Botany.' It is a native of the Mysore country, where it appears to be plentiful, though, as far as we yet know, it is peculiar to that region. Our plants were raised from seeds sent to us in 1863, and flowered in a greenhouse devoted to succulent plants, in May, 1864.

Descr. *Stem*, as far as I know, simple, but subarborescent, succulent rather than woody, and, as Dr. Wight assures us,

often attaining a large size. *Leaves* also succulent and glaucous, two to three inches long, opposite, sessile, obovate or subrhomboidal, with three principal longitudinal nerves, and lesser ones branching off from them; the foliage becomes gradually smaller up the stem, as they approach the flowers; the margins coarsely sinuato-crenate. *Cyme* terminal, subsessile, many-flowered, scarcely pedunculate. *Flowers* rather large; *peduncles* bracteated. *Calyx* of four, deep, ovate, reflexed *sepals*. *Corollas* bright-yellow, hypocrateriform; *tube* elongated, swelling at the base, so as to be bottle-shaped; *limb* of four, spreading, reflexed *sepals*, uncinato-mucronate. *Stamens* eight, four long and four short, inserted at the faux of the corolla; *filaments*, four long and four short. *Ovaries* four, slightly united. *Styles* four, glandular at the apex, elongated, erect.

Fig. 1. A flower of *Kalanchoe grandiflora*, Wall. 2. Corolla laid open. 3. Pistils and hypogynous glands:—*magnified.*

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5461.

DELPHINIUM Brunonianum.

Mr. Brown's Musk Larkspur.

Nat. Ord. Ranunculaceæ.—Polyandria Monogynia.

Gen. Char. Sepala 5, basi subconnata, posticum (seu calycis tubus) deorsum in *calcar* productum. *Petala* 2 v. 4, parva, 2 postica (sæpe connata) in appendicem calcariformem intra calcar calycis producta, 2 lateralia ecalcarata v. deficientia. *Carpella* 1–5, sessilia, libera, pluriovulata, maturitate folliculatim dehiscentia. *Semina* subcarnosa.—Herbæ *annuæ v. caudice radiciformi perennes, erectæ, ramosæ.* Folia *alterna, subternatim palmatimve lobata v. dissecta.* Flores *majusculi, laxe racemosi v. paniculati, cærulei purpurei rosei v. albi, rarissime flavi.* Filamenta *basi interdum dilatata. Benth. et Hook. fil.*

Delphinium *Brunonianum;* caule simplici vel ramoso, folioso, foliis reniformibus subquinquefidis, lobis cuneato-ovalibus grosse inciso-dentatis, floribus corymbosis, calcare late saccato conico obtuso, ovariis 5–6.

Delphinium Brunonianum. *Royle, Illustr. Hook. et Thoms. Fl. Ind. p.* 53.

Dephinium moschatum. *Hook. et Thoms. l.c.*

The genus *Delphinium*, or *Larkspur*, is considered by Bentham and Hooker fil. to include about forty species, dispersed over the temperate portion of the northern hemisphere, both of the Old and New World, of which fifteen are enumerated as inhabiting Northern India. Our present handsome species is a native of that country, that is, of Western Thibet, on the lofty alps, at altitudes of from 14,000 to 18,000 feet; at Nubra, Ladak, and Hangarang, where it flowers in August and September. It may, therefore, well be supposed to be hardy in our climate. It was first described by Dr. Royle, and named by him "in honour of the illustrious botanist to whom I am indebted for the use of the herbarium of R. Inglis, Esq., of Kunawur. This plant was found by that gentleman on the Kongno Pass" (*Royle*, l.c.). With us it blossoms in the open border in June, and has quite died down to the ground early in July. It is remarkable for

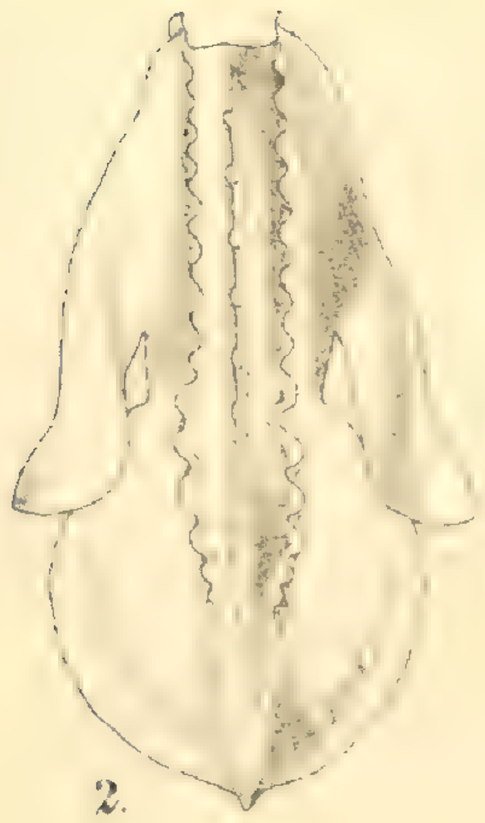
the very powerful odour of musk, which is not peculiar to this species of the genus, but exists in other high alpine species, which form a peculiar group, with large half-closed membranaceous flowers, whence the mountaineers erroneously suppose that the musk-deer feed upon them, and thereby communicate the peculiar odour to their glandular secretions. The *D. moschatum*, Munro, is now, by Hooker and Thomson, rightly referred to the present plant. Our plants are raised from seeds lately sent by Dr. Cleghorn.

Descr. Whole *herb* musky. *Stem* erect, six to eight inches to a foot or more high, simple or branched, viscoso-puberulous or tomentose. *Lowest leaves* long-petioled; *petioles* three, four, and six inches long, sheathing at the base: the *blade* appressedly pubescent, three to four inches long, and more broad, reniform, deeply lobed, with the lobes strongly inciso-dentate: *stem-leaves* smaller, and on shorter petioles; *uppermost* ones tripartite and toothed. *Flowers* corymboso-racemose; *peduncles* erect, naked, or bracteated: two small ligulate *bracts* at the base of the flower. *Flowers* large, pale-blue, bright-purple towards the margin, yet black in the very centre. *Sepals* nearly orbicular, an inch long, veined; *spur* infundibuliform, tapering into a long, subulate, slightly flexuose apex. Posterior *petals*, with the lamina pale-coloured, obovato-spathulate, two-lobed.

Fig. 1. Flower, with sepals removed,—*slightly magnified.*

1.

3.



2.

W Fitch. del. et lith.

Vincent Brooks, Imp.

Tab. 5462.

CŒLOGYNE ODORATISSIMA.

Honey-scented Cœlogyne.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Sepala conniventia v. patentia, libera (nunc invicem agglutinata), æqualia, petaloidea, sæpius basi obtusa. *Petala* conformia, aut multo angustiora. *Labellum* cucullatum trilobum v. indivisum, petaloideum, basi sæpe saccatum, venis 2–3 pluribusve parallelis cristatis, nunc cum basi columnæ connatum. *Columna* erecta, libera, alata, apice membranaceo-marginata. *Stigma* prominens, alte excavatum, bilabiatum. *Pollinia* 4, libera, incumbentia, materie glandulosa cohærentia. *Anthera* infra apicem columnæ inserta, mobilis, vix decidua.—Herbæ *epiphytæ vel terrestres* Asiæ tropicæ, *pseudobulbosæ*. Folia 1–2, *nervosa*. Racemi, *aut* flores *solitarii, terminales, sæpe e squamis corneis erumpentes*. Flores *albi rosei flavidi aut brunneo-maculati, immo virescentes, sæpissime speciosi. Lindl.*

Cœlogyne (Erectæ) *odoratissima;* pseudobulbis ovatis sulcatis, foliis 1–2 membranaceis nervosis racemo erecto 2–3-floro brevioribus, bracteis angustis cymbiformibus divaricatis, labelli trilobi 3-cristati lobo medio obtuso subundulato, lateralibus brevioribus planis. *Lindl.*

Cœlogyne odoratissima. *Wight, Ic. Plant. Ind. Or. t.* 1640. *Lindl. Fol. Orchid., Cœlogyne p.* 5. *n.* 10.

Cœlogyne angustifolia. *Wight, Ic. l. c. t.* 1641.

A pretty and graceful *Cœlogyne*, native of Ceylon, on the mountain of Neura Ellia and of the Nilghiri Hills of the Madras Presidency. We possess living plants direct from the latter country, and also from Mr. Bateman. Dr. Wight has made two species, and Dr. Lindley has considered them two varieties. Our plants scarcely merit the name of *odoratissima*, unless a rather powerful smell of honey entitles the species to that distinction. In its native hills it grows on the trunks or branches of trees, flowering throughout the rainy season, from May till October. Respecting this species we have received the following interesting notice from Mr. Bateman :—"The plant that you were good enough to give me last year under the name of *Cœlogyne odora-*

tissima has just (April 21, 1864) flowered with me and exactly corresponds with the figure of that species in Dr. Wight's Icones. It likewise so entirely corresponds with the figure of *C. angustifolia* in the same work that I cannot entertain a doubt of the perfect identity, which Dr. Wight himself seemed to suspect, of the two plants. At the same time it is probable that the plant to which Achille Richard gave the name of *C. angustifolia* may be really distinct, a matter of which Dr. Wight had no opportunity of judging. *C. odoratissima* grows freely if not kept too warm; indeed I believe that it will be found to succeed perfectly in a cool orchid-house, into which I was led to place it after hearing the account of its habitat from General Cotton, who at once recognized the species when looking through my collection the other day. According to him this and other *Cœlogynes* are found in large masses on the summits of the highest Nilgherry hills, but always *on the north side*, and frequently growing among stones and wet moss. It always flowered so punctually the second week in April—the week in which was Mrs. Cotton's birthday—that it enjoyed the designation of the 'Birthday Orchis' during her and the gallant General's residence in India, and it was interesting to me to notice that this year it opened its flowers at Knypersley only a few days later than the date of the auspicious anniversary in question. Next year I hope it may keep exact time!"

Descr. *Pseudobulbs* pale-green, about an inch long, very much tufted on creeping roots, ovate, but waved and wrinkled on the surface rather than striated. *Leaves* mostly two, crowning the summit, three to four inches long, linear-lanceolate, appearing at the same time with the flowers. *Peduncles* slender, filiform, arising from the summit of the pseudobulb from between the two leaves, more or less drooping, shorter than the leaves, bearing about three bracteated flowers. *Bracteas* long lanceolate, longer than club-shaped, petiolated *ovary*. *Perianth* much spreading, pure-white, rather more than an inch across: *sepals* oval-lanceolate; *petals* oblong-lanceolate. *Lip* about equal in length with the sepals, curved downwards, obovate, three-lobed, white, with a yellow disk, and having three conspicuous lamellæ or crests, waved at the margins; side lobes oblong, plane; middle lobe cordato-rotundate, subacute. *Column* elongated, semiterete; *clinandrium* with a dilated margin, in which the hemispherical anther-case is sunk.

Fig. 1. Column and anther. 2. Front view of the labellum. 3. Pollen-masses:—*magnified.*

2.

3.

W. Fitch. del et lith

Vincent Brooks, Imp.

Tab. 5463.

APHELANDRA Liboniana.

Libon's Aphelandra.

Nat. Ord. Acanthaceæ.—Didynamia Gymnospermia.

Gen. Char. Calyx quinquepartitus, laciniis chartaceo-membranaceis subtiliter striatis, postica sæpe latiore. *Corolla* bilabiata vel ringens, labio superiore bidentato rariusve subintegro plerisque fornicato, inferioris tripartiti laciniis lateralibus sæpe minoribus. *Stamina* 4, corollæ tubo prope a basi inserta, subæqualia, corolla sæpe longiora; *filamenta* basi pilosa; *antheræ* uniloculares, basi apiceque acutæ, dorso herbaceo carinato, apice plerisque barbatæ villisque connexæ. *Stigma* bidentatum. *Capsula* basi compressa, a medio tetrasperma (lævis et nitida). *Semina* retinaculis fulcrata.—Frutices *Americæ tropicæ.* Folia *alia integerrima, alia dentata pinnatifidave spinosa.* Corolla *speciosa, rubra.* Spicæ *axillares et terminales, sæpe arcte imbricatæ.* Flores *solitarii, tetrastichi.* Bracteæ *vix calycem æquantes, at eo sæpe latiores.* Bracteæ *duæ, minores. Nees.*

Aphelandra *Liboniana;* foliis spithamæis et ultra late ovato-lanceolatis breviacuminatis sinuatis basi in petiolum biuncialem sensim attenuatis, ad costam albo-lineatis, spicis sessilibus terminalibus simplicibus, bracteis quadrifariam imbricatis amplis (non carinatis) erecto-patentibus ovatis lineatis aurantiacis, floribus parvis vix bractea longioribus, sepalis ovato-lanceolatis acutis erectis æqualibus, corolla flava rubro-tincta, tubo elongato paululum ventricoso, apice bilabiato, labio superiore parvo lineari integro reflexo, inferiore trifido, staminibus styloque exsertis.

Aphelandra Liboniana. *Hort. Linden.*

Received from Mr. Linden with the name here adopted, but no locality has been given with it. It is probably a native of Brazil, whence comes an allied but quite distinct species, which we have figured at Tab. 4899 of this work, *Aphelandra variegata* of Morel. Both have the same rich golden-coloured tetrastichous spike, with yellow flowers; but *here*, while the bracteas are neither closely imbricated nor carinated, and the flowers scarcely exserted beyond the bracts, *there* the bracts are carinated and closely and compactly imbricated, and the larger flowers are much exserted, to say nothing of other important characters. Flowers in May, in a warm stove.

Descr. At present our *plant* has attained a height of only

about two feet, is shrubby below, somewhat herbaceous above; *branches* terete. *Leaves*, the largest of them a span and more long, deep-green, with a white line down the centre, broad ovato-lanceolate, rather suddenly acuminate, the margin entire, or only slightly sinuated, the base narrowly decurrent into a stout *petiole* two to three inches long; the *upper* leaves are smaller and more acuminate, all opposite, and rather strongly penniveined. *Spike* sessile, long (five to six inches), composed of large, bright, orange-coloured *bracts*, arranged in four rows, an inch and more long, broad-ovate or subobovate, obtuse, the base concave and imbricated (not keeled), the upper half somewhat spreading, the back marked with three to five longitudinal slightly elevated lines. *Flowers* small in proportion to the size of the bracts, deep-yellow, red at the apex, scarcely exserted: each has two small *bracteolas* at the base. *Calyx* of five ovato-lanceolate, erect, equal sepals, much shorter than the corolla. *Tube* of the corolla subcylindrical, but ventricose upwards, two-lipped at the mouth: *upper lip* of a single undivided ligulate piece, reflected on the tube; *lower one* of three ovato-lanceolate lobes. *Stamens* with the long, narrow, single-celled, nearly equal *anthers* quite exserted. *Ovary* on a large globose disk. *Style* filiform, protruded a little beyond the stamens: *stigma* a little dilated.

Fig. 1. Calyx and corolla (the bracteoles being removed). 2. A stamen. 3. A pistil:—*magnified.*

3.

1.

2.

Tab. 5464.

URCEOLINA PENDULA.

Drooping Urceolina.

Nat. Ord. Amaryllidaceæ.—Hexandria Monogynia.

Gen. Char. Perigonium superum, corollaceum, rectum, e tubo gracili tereti ventricóso-campanulatum, 6-fidum, regulare, marcescendo-persistens? ; *laciniis* brevibus, ovatis, subæqualibus, recurvato-patulis, exterioribus acuminatis. *Stamina* 6, summo tubo inserta, basi membrana juncta (corona staminifera abbreviata, sinubus interstamineis), exserta, inæqualia ; *sepalino* superiore elongato, *petalino* inferiore abbreviato. *Antheræ* oblongæ, dorso infra medium affixæ, incumbentes. *Ovarium* subrotundo-ovatum, tricoccum, multiovulatum. *Columna stylina* filiformis, erecta, stamina vix superans. *Stigma* obtusum, trigonum. *Capsula* trigona, trisulca, trilocularis, polysperma.—Herbæ *bulbiferæ, scapigeræ, bulbo tunicato.* Folia *coætanea, petiolata, oblonga, crassa.* Scapus *solidus, convexo-planus, umbellato-pluriflorus.* Spatha *polyphylla, marcescens.* Flores *pedicellati, penduli. Kth.*

Urceolina *pendula ;* foliis petiolatis tripalmaribus, palmam latis, scapo pedali, floribus 5–8 bipollicaribus, limbo inferne flavo, superne viridi albo-angulato, filamentis styloque limbum superantibus. *Herb.*

Urceolina pendula. *Herb. Amaryl. p.* 193. *Lindl. in Bot. Reg.* 1838, *n.* 151.

Urceolaria pendula. *Herb. Amaryl. App.* 28.

Crinum urceolatum. *Ruiz et Pav. Fl. Peruv.* 3. *p.* 58. *t.* 287. *fig. b.*

Collania urceolata. *Schult. Syst. Veget.* 7. *p.* 893. *Rœm. Amaryl. t.* 54. *Kth. Enum. Plant.* 5. 645.

Urceolina aurea. *Gard. Chron.* 1864, *p.* 627.

For the opportunity of figuring this very fine Amaryllidaceous plant, we are indebted to Messrs. Veitch, of King's Road, Chelsea, who, through their collector Mr. Pearce, imported the bulbs from Peru, where the locality given for it by Ruiz and Pavon (its first describers) is "woods on the Andes at Pozuzo and Pampamarca." Mr. Herbert remarks that the size of the flowers is exaggerated in the 'Flora of Peru and Chili;' but such is not the case, as our specimen and figure will prove; and the shape and colour are very remarkable: the former is that of an inverted

pitcher, having a remarkably inflated yellow upper part to the tube, while the limb is quite green with a white edge, the very contracted part of the tube is quite filiform. It has flowered in June of the present year, 1864.

Descr. *Bulb* subrotund, as large as a good-sized hyacinth or onion, tunicated. *Leaves* two, a span and more long (in the present instance on a different bulb from the scape), elliptic-oblong, shortly but sharply acuminated, rather thick and carnose, faintly striated, tapering rather suddenly below into a semiterete *petiole* about four inches long. *Scape* fifteen inches long, subterete, bearing at the summit a large *umbel* of drooping flowers. *Pedicels* $1\frac{1}{2}$–2 inches long. *Perianth* with its base incorporated with the cordiform, three-lobed, three-celled *ovary*, then for about an inch it is contracted into a *tube* so narrow and green as to resemble a pedicel, thence it suddenly expands into a very large inflated broad-ovate portion of the tube with six shallow furrows, while the mouth is spreading, six-lobed, full green, white at the margins of the lobes. *Stamens* six, arising from a short, cup-shaped, six-toothed membrane, which lines the base of the inflated portion of the tube. *Filaments* long, exserted, nearly equal. *Style* very long, filiform, nearly equalling the stamens in length. *Stigma* clavate, subtrifid.

Fig. 1. Flower laid open. 2. Stigma. 3. Transverse section of the ovary :— *magnified.*

W Fitch del. et lith.

Vincent Brooks, Imp.

Tab. 5465.

MACLEANIA PULCHRA.

Showy Macleania.

Nat. Ord. Vacciniaceæ.—Decandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5453.)

Macleania *pulchra ;* fruticosa, glabra, ramis teretibus elongatis pendentibus, foliis 3–4-uncialibus oblongis basi obtusis brevipetiolatis obtuse acuminatis coriaceis nitidis 5-nerviis, junioribus angustioribus rubro-tinctis, floribus axillaribus aggregatis copiosis pendentibus, pedunculis clavatis calyceque turbinato profunde 5-angulato lobisque triangulari-acuminatis coccineis, corollæ, tubo 15 lineas longis obscure 5-angulatis coccineis, limbo 5-lobato flavo, lobis parvis ovato-triquetris subpatentibus.

This fine plant was presented to us in full flower in May, 1864, as a native of New Granada, under the name of *Thibaudia floribunda*, H.B.K. Nov. Gen. An. 3, p. 369, tab. 254; but with that figure and description our plant does not accord, neither does it, I regret to say, with any of the numerous supposed forms in my Herbarium, chiefly from Mexico, Columbia, Peru, and Ecuador. The species are probably very variable and in the nature of the opening of the anthers; sometimes the tubular portion of the two cells forks and two distinct cells and openings or pores are the consequence, and sometimes the two seem to combine and constitute one pore or slit, but with an imperfect longitudinal septum as in our present species, which accords in so many points with our *Macleania speciosissima* that, but for that circumstance, the much longer and acuminated lobes of the calyx and the rich scarlet colour of the peduncles and calyx, I should have been disposed to refer it to that plant. Dried specimens of this genus of plants have their succulent flowers so altered and diminished in size in drying, that it is hard to recognize them. A good series of figures from living individuals will, it is to be hoped, help to clear up the difficulties attending their determination.

September 1st, 1864.

Descr. A handsome-growing glabrous *shrub* with elongated pendent *branches*, and rather large glossy elliptical or oblong *leaves* shortly petioled, 5-nerved, obtuse at the base, blunt acuminate at the apex: the young terminal leaves much smaller than the rest and with a vinous-red tinge. *Peduncles* all from the axils of the leaves, and there aggregated and pendent; *flowers* large and beautiful. *Peduncles*, calyces and the elongated *tube* of the *corollas* bright scarlet with the *limb* yellow. The rest of the flower very much resembles that of *M. speciosissima* of this volume, Tab. 5543.

Fig. 1. Calyx, stamens, and pistil. 2. Two stamens with a portion of the staminal tube. 3. Transverse section of the ovary:—*magnified*.

2

3.

W.Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5466.

CYPRIPEDIUM CARICINUM.

Sedge-like Lady's Slipper.

Nat. Ord. Orchidaceæ.—Gynandria Diandria.

Gen. Char. (*Vide supra*, Tab. 4901.)

Cypripedium *caricinum;* rhizomate repente, foliis angustissimis coriaceis acutis unicostatis scapo plurifloro subæqualibus, bracteis ovatis acutis spathaceis glabris ovario glabro brevioribus, sepalis lateralibus connatis labelli longitudine, petalis duplo longioribus tortilibus deflexis, labello mediocri oblongo semiaperto, staminodio mystacino, columnâ processu magno bituberculato postice auctâ.

Cypripedium caricinum. *Lindl. in Paxton's Flower Garden, vol. i. sub pl.* 9.
Selenipedium caricinum. *Reich. fil. Xen. Orchid. v.* 1. *p.* 3.
Cypripedium Pearcii, *Hort.*

This singular Peruvian plant was received last year (1863) by Messrs. Veitch from their enterprising collector, Mr. Pearce, after whom I had provisionally named it, while under the impression that it was not only new to our gardens, but new to science as well. On proceeding however to collate the plant with the species enumerated by Lindley in Paxton's 'Flower Garden' I found, under the name of *C. caricinum*, what could be none other than our present subject; the description being taken from Bolivian specimens collected by Mr. Bridges. As the prior name of *C. caricinum* must of course be retained, that of *Pearcii* will have to be cancelled, a circumstance that I should have been more disposed to regret had not Mr. Pearce's name already been worthily associated with divers beautiful plants first discovered by himself. Dr. Lindley's specific name happily designates the grassy or sedge-like appearance of the plant, which in this respect, as well as in its long creeping rhizome, is entirely unlike any other *Cypripedium* with which we are at present acquainted. It would be a *Selenipedium*, if Professor Reichenbach's genus of that name were accepted, but I quite

agree with Dr. Lindley that no sufficient case has yet been made out for any such separation of the South American species from the rest of the *Cypripedia*.

C. caricinum flowered in May last in Messrs. Veitch's establishment in the King's Road. It had been kept in a hot and moist stove, where it seemed to thrive; but as its native habitat is in a comparatively cool and elevated region, it will probably succeed as well, or even better, under *cool* treatment. To such indeed it has already been subjected at Knypersley, where it is growing vigorously, though it has not yet flowered. Being a terrestrial plant it should be potted in good fibrous peat, and if its travelling rhizomes are to have fair play it must have plenty of space.

Descr. Whole plant about a foot high. *Leaves* stiff, resembling those of a sedge, and springing in tufts, at intervals of two or three inches, from a travelling above-ground *rhizome*. *Scape* rising clear of the leaves, furnished with two or three acute, slightly inflated, smooth *bracts*, which are shorter than the ovary. *Flowers* three to six or more, expanding in succession, and for the most part of a pale greenish hue, except that the sepals and petals have a narrow white margin, while their extremities are tipped with purplish-brown. The *sepals* (the two lower coalescing into one) are broadly ovate, waved at the edges, and about the length of the lip. *Petals* hanging down, very narrow, more than twice the length of the sepals, much twisted. *Lip* of moderate size (*i.e.* not so much puffed out as in many of the other species), of an oblong form, open for about half its length, its upper edges spread out flat, so as to make a plateau, on which the *sterile stamen* (itself provided with two hairy processes, exactly resembling a pair of black moustaches) seems to rest. *Column* short, having on its under side a large roundish projecting callosity, with tubercles on either side. (*J. Bateman.*)

Fig. 1. Front view of lip. 2. Front view of apex of column. 3. Side view of ditto:—*magnified.*

2.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5467.

ERANTHEMUM Cooperi.

Sir Daniel Cooper's Eranthemum.

Nat. Ord. Acanthaceæ.—Diandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5440.)

Eranthemum *Cooperi;* suffruticosum, ramis tetragonis, foliis brevipetiolatis anguste lanceolatis grosse subserrato-lobatis incisis, floribus geminatis axillaribus, folio multo-brevioribus, calycis laciniis subæqualibus subulatis erectis, corollæ albæ tubo elongato gracili, limbo amplo bilabiato patente, labio superiore bi- inferiore tripartito, lobis oblongis medio lineatim purpureo-maculato, omnibus fere æqualibus.

This very handsome and very distinct species of *Eranthemum* has been raised by Messrs. Veitch, from seeds given them by Sir Daniel Cooper, from New Caledonia, a fine island, of which the French Government is zealously exploring the natural history. Its flowers were produced in a warm greenhouse, in June, 1864. We possess in our herbarium, native specimens of the same plant gathered in the island of Aneiteum, by Milne and Macgillivray.

Descr. This promises to be a moderate-sized suffruticose plant, rather copiously branched, with opposite tetragonous *branches*. *Leaves* about three inches long by five lines wide, shortly petiolate, narrow-lanceolate, acuminate, gradually attenuate below, the margins inciso-lobate, the segments sharp and pointing forwards. *Pedicels* short, two springing from the axils of the *leaf*, tinged with purple upwards. *Calyx* of five, erect, subulate segments, also tipped with purple. *Tube* of the corolla slender, elongated, white. *Limb* white, of two spreading lips, *upper lip* of two deep lobes, *lower* of three, of which the middle one is marked with small purple dots or spots, disposed in lines; all the lobes oblong, obtuse or subspathulate, nearly equal.

Fig. 1. Calyx and pistil. 2. Ovary and hypogynous gland and styled stigma:—*magnified.*

September 1st, 1864.

W Fitch, del. et lith.

Vincent Brooks, imp.

Tab. 5468.

GENETHYLLIS FIMBRIATA.

Thyme-leaved Genethyllis.

Nat. Ord. Myrtaceæ (sect. Chamælaucеæ).—Icosandria Monogynia.

Gen. Char. Calyx tubulosus, 5-costatus, dimidiatus, inferne ovario adnatus, basi carnosus, superius in faucem productus, limbo obtuso, 5-dentato; totus lævis v. inferiore parte ovarium corticante rugulosus, vel rugis transverse parallelis in marginem liberum cartilagineum productis pluriannulatis. *Corolla* scariosa vel membranacea, limbo calycis adnata; *petala* 5, concava vel navicularicarinata, in acumen obtusum extenuata, conniventia. *Androniti*s ultra calycis limbum brevissimo, brevi, v. longiori spatio monadelpha, inferius inde confluens in laminam parieti faucis adnatam. *Staminodia* 10, staminibus totidem rite alterna, variæ configurationis dentiformia, subulata, liguliformia, petaloidea, præfloratione erecta. *Filamenta* staminodiis subæqualia v. longiora, filiformia, præfloratione introflexa, antheris duplici serie, altiori et demissiori, fauci applicatis. *Antheræ* globosæ, connectivi simplicis *fronti* insertæ, bilocellatæ, *locellis* subconfluentibus, virgineis leviter constrictis, poro postico dehiscentibus. *Ovarium* calyci omnino immersum, vertice truncatum, laminaque epigyna indutum. *Ovula* gemina paucave in placenta basifixa centrali erecta, anatropa. *Stylus* exsertus, infra stigma barbatus, v. glabra. *Fructus* . . . .—Flores *in apicibus ramulorum pauci vel numerosi, capitati, congesti, in axis dilatati receptaculiformis areolis sessiles v. pedicellati*, bracteis *stipati, internis hebetatis, extimis vero sæpe auctis coloratisque* involucrum *capituli exhibentibus*. Bracetolæ *binæ, liberæ, juxta calycis basin oppositæ, sessiles, membranaceæ, naviculares, carinatæ, floris primordium amplectentes, dein divergentes, sub anthesi deciduæ. Schauer.*

Genethyllis (Involucratæ) *fimbriata;* erecta ramosa glabra, foliis confertis plerumque oppositis decussatis ellipticis obtusis, supra convexis, subtus pallidis, margine ciliatis, capitulis terminalibus cernuis 8–10-floris, involucro campanulato pollicari, bracteis carinatis elliptico- v. ovato-oblongis margine fimbriatis, exterioribus ovatis herbaceis quadrifariam imbricatis, bracteolis lanceolatis acuminatis carinatis flores sessiles subæquantibus, calyce ovato-cylindrico basi lævissimo crustaceo minute punctato, fauce contracte corrugata, lobis minutissimis, petalis ovatis acutis membranaceis, staminodiis filiformibus filamenta subulata æquantibus, stylo filiformi, longe exserto apice hispido. *Kipp.*

Genethyllis fimbriata. *Kipp's Journ. of Linn. Soc. v.* 1. *Bot. p.* 49.

A lovely shrub, as are all the species of the genus yet known

September 1st, 1864.

to us, a native of South-West Australia, discovered by Mr. J. Drummond, and sent home in his fifth distribution of Swan River plants; subsequently found by Mr. Oldfield, at Stirling River. It has been introduced to our greenhouses by Messrs. Veitch, of the Chelsea Nursery, from whom we received the specimen here figured in June, 1864. It will be observed, that it is not the flowers which constitute the beauty of this plant, for they are small and insignificant, but the coloured involucral scales, resembling a large drooping bell-shaped flower.

Descr. A small very bushy *shrub*, with alternate, terete, woody *branches*, and copious, decussated, and consequently quadrifarious, firm, obtuse, sessile, glanduloso-punctate *leaves*, three to four lines long, ciliated, patent, very much resembling some species of *Thymus*. *Involucres* three-quarters of an inch long, terminal, solitary, drooping, sessile, composed of numerous *scales* or bracts, of which the outer ones are the smaller and more foliaceous, larger than the *leaves*, imbricated, reflexed at the apex, and the inner or uppermost ones are very large and rose-coloured, so as to resemble petals; these are oblong, obtuse, or retuse, all strongly fringed, and obscurely three-nerved. *Flowers* very small, included within the involucre and concealed by it. *Florets* each with a pair of small bracteoles, oblong, acute. *Calyx* with five acuminate teeth. *Style* long, subulate, and terminating in a sharp stigma tufted with hair at the base.

Fig. 1. Leaf. 2. Inner bract of the involucre. 3. Bracteoles and flower. 4. Flower laid open. 5. Stamens and segment of a calyx :—*magnified*.

W Fitch. del et lith.

Vincent Brooks, Imp.

Tab. 5469.

THLADIANTHA dubia.

Dubious Thladiantha.

Nat. Ord. Cucurbitaceæ.—Diœcia Pentandria.

Gen. Char. Flores dioici; *masculi* dimorphi, inæquales; *tubo calycino* late campanulato, *sepalis* majusculis complanatis; majorum *petala* fere libera, erecta, corollam campanulatam fingentia, *sepalis* (ut plurimum reflexis) longiora. *Antheræ* 5, dimidiatæ, æquales, 1-loculares, rectæ, *filamentis* liberis, 4 per paria petalis 2 oppositæ, quinta solitaria cum petalis 2 alternante. *Appendicula* brevis, petaloidea, obtusa, discum centralem horizontaliter tegens. *Florum masc.* minorum: *petala* sepalis breviora; *antheræ*, ut videtur, steriles. *Fl. fœminei: calyx* et *corolla* masculi. *Styli* 3, breves; *stigmatibus* reniformi-capitatis. *Bacca* oblonga, pulposa, sub-12-costata, inter costas lacunosa. *Semina* numerosa, multiseriata, obovoidea, compressa; *testa* crustacea, lacunosa, pulpa induta. (*Descript. partim ex Naudino.*)

Thladiantha *dubia. Bunge, En. Pl. Chin. Bor.* 29. *Naudin in Annales des Sc. Nat., ser.* 4. *v.* 12. *p.* 150.

According to a notice in the 'Gardeners' Chronicle' for 1861, p. 845, this very remarkable plant forms a large rambling climber, covering trellis-work and bushes to a considerable height in the Jardin des Plantes at Paris. We received our plant from Messrs. Henderson and Co., of Wellington Road Nursery, and it flowered freely in a cool pit; but, as is the case both with the Parisian specimens and with those first described by Bunge (the author of the genus), all the flowers produced have been males. According to Bunge the species was discovered by himself in waste places near Pekin; and Naudin, who has re-described the genus in the 'Annales des Sciences Naturelles,' states that the seeds were received by the Imperial Jardin d'Acclimatation from China. On comparing the specimens with our herbarium, we find a closely allied plant gathered by Drs. Hooker and Thomson in the Sikkim Himalaya and Khasia mountains, from 5–6000 feet elevation, together with drawings of both the male and female flowers and fruit, made by Dr. Hooker (from which our figures 3 to 8 are copied). There is however this difference between the Himalayan and Chinese male flowers, that the Himalayan

ones are surrounded at the base by laciniated bracts. This, which at first sight appears a most important difference, is in reality not so, for in another most closely allied species, of which we have a drawing, both naked and bracteate male flowers are represented as springing from the same axil, and in still older plants of the Order, as *Momordica tubiflora*, Roxb. (Fl. Ind. 711), the young plants produce solitary flowers, and the older ones longer peduncled flowers with gashed bracts. Under these circumstances we have ventured to introduce the figures (3 to 8) of the female flower, fruit, and seed from Dr. Hooker's drawings and dried specimens, with the object of better illustrating the genus.

Professor Oliver was much struck with this graceful climber in the Parisian Gardens, and thus remarks upon it in the 'Gardeners' Chronicle' for September, 1864, p. 345:—"You notice this Cucurbit in 1861, p. 848, as having been then recently introduced by the French Acclimatization Society. I wonder if your notice attracted the attention of English floriculturists to it. Few things which I saw in a recent visit to the Botanic Gardens of Paris, Lyons, and Grenoble, pleased me more than this plant. In the experimental gardens of the Jardin des Plantes, it grows like a weed, covering everything in its way with a pretty foliage of velvety, heart-shaped leaves, and a profuse abundance of beautiful, bell-shaped, yellow flowers. There can be no doubt that in the south of England, at any rate, it would grow well enough out-of-doors. In the north, if too cold, it would be a valuable addition as a greenhouse climber."

Descr. A tall scrambling climber, of a bright pale-green colour, uniformly clothed with a rather stiff pubescence. Branches very slender. *Tendrils* simple. *Leaves* broadly ovate-cordate, with a very deep closed sinus at the base, irregularly toothed. *Flowers* solitary, axillary, on slender hispid peduncles, bright-yellow. *Calyx* of five reflexed linear-oblong lobes. *Corolla* campanulate, five-lobed to the base, lobes channelled and obtusely ribbed, obtuse, glabrous; at the base of the corolla is a small unilateral scale which projects over the central hairy disk. *Stamens* five, four in pairs opposite two of the petals, one opposite the union of two petals. *Anthers* linear-oblong, extrorse. Female flowers like the male. *Ovary* narrow-oblong, tomentose; *stigmas* three, with capitate reniform stigmas. *Berry* oblong, with about twelve elevated ribs, very succulent, eaten by the natives. *Seeds* in about twelve rows, covered with pulp.

Fig. 1. Male plant. 2. Flower, cut open,—*natural size*. 3. Female flower. 4. Ovary. 5. Berry. 6. Transverse section of ditto. 7 and 8. Seed:—*all natural size*. Figs. 3 to 8 all from the Himalayan specimens.

3.

1.

2.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5470.

DENDROBIUM NODATUM.

Knotted-stemmed Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *nodatum*; caulibus elongatis gracilibus ramosis articulatis apice foliosis, ad articulos insigniter nodosis, foliis paucis oblongis, floribus solitariis (an semper?), perianthio ochroleuco, sepalis oblongis, petalis latioribus brevioribusque, calcare brevi obtuso, labello unguiculato rhombeo-ovato acuto 3-lobo, lobis lateralibus brevibus obtusis incurvis, lobo medio amplo glabro integro, disco aurantiaco, margine apiceque albo.

Dendrobium nodatum, *Reichenb. fil. ms.*

This charming *Dendrobium* is a Moulmein plant, sent by Mr. Parish to Messrs. Hugh Low and Co., of the Clapton Nursery, whence flowering specimens were forwarded in 1862 to Professor Reichenbach, who, finding the species to be undescribed, gave it the very characteristic name of '*nodatum*,' doubtless in allusion to the prominent 'nodes' into which the stems are divided. I am not aware that the Professor has yet published any technical description of the plant.

"*D. nodatum* is a free and rapid grower, and speedily produces dense tufts of its singular knotty stems. These unfortunately lose their leaves before the gay flowers, which are always single (*i.e.* not in pairs or racemes), make their appearance, a circumstance that points to the desirableness of giving the plant a decided season of growth and rest. Hitherto the flowers have been produced at irregular times, and less profusely than in its native country, but I apprehend that, as is the case with some other *Dendrobia*, we shall find that the stems when two or three years old, will bloom more freely than when of more tender age."—J. B.

Descr. *Stems*, rather than *pseudobulbs*, nearly a foot long, slender, branched, articulated, rooting at the joints, and there singularly nodose or swollen. *Leaves* upon the younger shoots mostly terminal, two to three inches long, oblong and obtuse. *Flowers* on the old stems, from which the leaves have fallen,

solitary in our specimen, the short single-flowered *pedicel* springing from a nodose joint towards the apex of the stem, and passing gradually into the club-shaped inferior ovary. *Sepals* and *petals* ochroleucous, spreading; the *former* oblong, obtuse; the *latter* similar to them, but shorter and broader. *Spur* short, very obtuse. *Lip* projecting, about equal in length to the petals, unguiculate, clawed (a white callous *disk* on the claw), three-lobed, the side-lobes short, rounded, incurved with a deep blood-coloured spot at the base; the middle lobe very large, subrhomboid, acute, the whole slightly sprinkled with hairs, deep-orange, with a white margin and apex; *column* short, but very decurrent, white, variously spotted in front with green and purple. *Anther-case* purple.

Fig. 1. Column and anther. 2. Front view of the labellum. 3. Pollen-masses.

W. Fitch, del. et lith.

Vincent Brooks. Imp.

Tab. 5471.

CYANOTIS NODIFLORA.

Nodose-flowered Cyanotis.

Nat. Ord. Commelyneæ.—Hexandria Monogynia.

Gen. Char. Flores subregulares. *Sepala* 6; exteriora subæqualia, navicularia, basi connata, persistentia; *interiora* longiora, petaloidea, per ungues connata (calyx interior infundibularis, limbo trifido), caduca. *Stamina* 6, subæqualia, subhypogyna, vix basi tubi adhærentia; *filamenta* longissima, apicem versus barbata. *Antheræ* conformes, biloculares; *loculis* parallelis, contiguis (divaricatis, connexivum marginantibus, *Endl.*). *Ovarium* sessile, triloculare; *ovulis* in singulo loculo geminis, superpositis (collateralibus, *Br. Endl.*), sessilibus, superiore adscendente, inferiore descendente. *Stylus* 1, apice incrassatus (*Endl.*). *Stigma* excavatum (*Endl.*, tubulosum, *Don*). *Capsula* trigona, trilocularis, membranacea, trivalvis; *valvis* medio septiferis. *Semina* bina, superposita, angulata. —Herbæ *annuæ* vel *perennes, plerumque diffusæ et repentes.* Folia *integra, basi vaginantia;* vagina *integra.* Flores *in pedunculis longiusculis axillaribus et terminalibus spicato-congesti,* folio *spathaceo cordato-complicato involucrati, singuli extus unibracteati;* bracteis *falcatis, bifariam imbricatis; interdum* flores *in axillis foliorum per geminos ternos vel plures conglomerati,* bracteis *interstincti.* Calyx *interior cæruleus vel purpureis. Kth.*

Cyanotis *nodiflora;* caulibus erectis simplicibus vel subramosis, superne subflexuosis; foliis lanceolatis acutis supra pilosiusculis, subtus vaginisque villoso-pilosis, superioribus gradatim minoribus, spathæformibus; floribus in axillis foliorum floralium spicato-conglomeratis, subsessilibus, singulis extus bracteatis, bracteis e basi lata lanceolatis, floribus purpureo-violaceis, staminibus longe exsertis, villosissimis.

Cyanotis nodiflora. *Kth. Enum. Plant. v.* 4. *p.* 106.

Tradescantia nodiflora. *Lam. Encycl. v.* 2. *p.* 371. *Poir. Encycl. Suppl. v.* 2. *p.* 372. *Rœm. et Sch. Syst. Veget. v.* 7. *p.* 1157.

Commelina speciosa. *Thunb. Fl. Cap. p.* 294.

Tradescantia formosa, *Willd. Sp. Pl. v.* 2. *p.* 20.

A pretty Commelynaceous plant from South Africa, long known in herbaria, but recently introduced into our conservatories by William Wilson Saunders, Esq., through his collector, Mr. Cooper. The genus has been separated from *Tradescantia* by Don, and adopted by Endlicher and Kunth, and embraces two groups, of which one is represented by the *T. cristata* of

Jacquin, figured, but very indifferently, in an early volume of the 'Botanical Magazine,' t. 1435, while our present plant may be considered the type of the other. To this also will, no doubt, belong the *Tradescantia tumida*, Lindl. Bot. Reg. for 1840, t. 42.

Cyanotis nodiflora is a ready flowerer, blooming in June in an ordinary greenhouse.

Fig. 1. Lower leaf of the plant,—*natural size.* 2. Entire flower. 3. Stamen. 4. Pistil:—*all magnified.*

5.

4

1.

3.

2

W.Fitch, del et lith.

Vincent Brooks, Imp

Tab. 5472.

VITIS Bainesii.

Baines's Gouty Vine.

Nat. Ord. Ampelideæ.—Tetrandria Monogynia.

Gen. Char. (*including* Cissus, *Linn.*). *Calyx* lævis, integer vel 4–5-dentatus. *Petala* 4–5, libera v. apice calyptratim cohærentia. *Discus* varius v. obsoletus. *Stamina* 4–5, infra marginem disci inserta; *antheræ* liberæ. *Ovarium* ovoideum v. subquadratum, 2-loculare (interdum imperfecte), rarissime 3–4-loculare. *Stylus* 0 v. brevis, conicus vel subulatus; *ovula* in loculis 2. *Bacca* ovoidea vel globosa, 1–2-locularis; *loculis* 1–2-spermis.—Frutices *cirrhosi, sarmentosi, sæpe alte scandentes.* Folia *simplicia vel composita, rarissime bipinnata,* foliolis *integerrimis serratis v. dentatis nunc pellucido-punctata.* Pedunculi *oppositifolii v. rarissime axillares, sæpissime versus apices ramulorum siti.* Flores *parvi, umbellati, cymosi paniculati racemosi v. spicati, ebracteati, non raro polygami. Benth. et Hook.*

Vitis *Bainesii;* succulenta, glauca, trunco ovato carnoso napiformi, ramis subspithamæis erectis simplicibus ecirrhosis; foliis ternatis breviuscule petiolatis (infimis nunc simplicibus), foliolis ovatis oblongisve grosse inæqualiter serratis penniveniis (venis subtus prominentibus), stipulis binis oppositis subulato-lanceolatis, pedunculis terminalibus longitudine caulis, floribus cymosis, pedicellis glandulosis, petalis cohærentibus calyptriformibus vel demum patentibus.

I believe botanists have generally agreed that *Cissus* and *Vitis* constitute but one genus, hardly affording sectional characters. Recent researches in tropical Western Africa have made known to us a remarkable form of this genus, with a very podagrous stem, and short, very succulent leafy branches, of which the *Cissus macropus* of Angola and Benguella, admirably described by Dr. Welwitsch in the 'Journal of the Proceedings of the Linnæan Society' for September, 1864, p. 77, must be considered the type. The description is prefaced by some admirable remarks on the *Ampelideæ* of the countries just mentioned. "Among the numerous groups of plants," says this accomplished botanist, "which more or less affect the physiognomy of the vegetation of Western Africa, the *Ampelideæ* hold a prominent position. They are interesting also to phytographists, from the fact that the nu-

merous species of *Cissus* (*Vitis*), by their varied habit and mode of growth, characterize the three great botanical regions into which, in my opinion, the district of Angola and Benguela must be divided. The entire number of species of *Ampelideæ* found by me in the above-named countries amounts to about forty (in which, however, are included two species of *Leea*), and a very remarkable plant, which occurs upon the high sandy plains of the district of Ambaca, and which ought probably to constitute a new genus. These forty species of *Ampelideæ* are spread over a space of 300 miles from east to west, commencing with the burning sandy steppes of the Atlantic coast region, and extending into the richly wooded, cool, elevated plains of the interior. Throughout this space the number of species increases gradually, and the number of individuals becomes continually greater. With regard to their geographical distribution, it is found that the species with thick, *sappy*, *fleshy stems* preponderate in the littoral regions (0–1600 feet alt.); those with *elongated*, *twining stems*, in the region of the primeval forests; and the species with *upright*, *scarcely twining stems*, in the highest region of the elevated plains of the interior. Thus, the species '*caule stante*' are very rare in the littoral region, whilst almost all the species which are found in the region of the elevated plains exhibit a short upright stem, without any tendency to scramble or to climb."

We are favoured by Dr. Welwitsch with a living plant of his *Cissus macropus*, which has flowered, and will by-and-by appear in our pages; at the same time another of the same remarkable group has been sent to us from Namaqua Land by another distinguished African traveller and artist, Thomas Baines, Esq. Its turnip-like trunk is 18 inches in circumference, but differs remarkably, besides other characters, from *C. macropus*, in having the leaves ternate, not quinate; and it is further remarkable that, as Welwitsch's plant inhabits the region where *Welwitschia mirabilis* grows in Benguela, so our *Vitis Bainesii* is found, we believe, in the region of the Namaquas, where Mr. Baines also found the *Welwitschia*.

Vitis Bainesii requires the protection of a warm stove, and it flowered in July, 1864.

Fig. 1. Entire flowering specimen,—much *reduced in size*. 2. Portion of a flowering branch,—*natural size*. 3. Bud and flower. 4. Calyx and pistil, with the large hypogynal glands. 5. Petals in a state of cohesion, hence calyptriform:—*all more or less magnified*.

W Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5473.

AMPHIBLEMMA CYMOSUM.

Cymose Amphiblemma.

Nat. Ord. Melastomaceæ.—Decandria Monogynia.

Gen. Char. Flos pentamerus. *Calycis tubus* oblongo-campanulatus; *limbus* dilatatus, membranaceus, mollis; *dentibus* triangularibus subacutis paulo infra apicem denticulo externo minuto instructis. *Petala* ovata aut obovata, apiculata. *Stamina* 10, alternatim inæqualia et heteromorpha; *antheris* linearisubulatis 1-porosis, 5 *majorum* connectivo infra loculos longe producto arcuato gracili ultra filamenti insertionem in appendicem truncatam aut saltem obtusam porrecto, *minorum* infertilium infra loculos nullo aut subnullo. *Ovarium* toto ambitu et fere usque ad apicem adhærens 5-loculare, apice membranula marginatum. *Stylus* filiformis, *stigmate* obtuso punctiformi. *Placentæ* productæ, lamelliformes. *Naud.*

Amphiblemma *cymosum.*

Amphiblemma cymosum. *Naud. Melastom. in Ann. des Sciences Nat. 3d Ser. v.* 15. *p.* 51.

Melastoma cymosum. *De Cand. Prodr. v.* 3. *p.* 147. *Vent. Hort. Malm. t.* 14.

Melastoma corymbosum. *Sims, Bot. Mag. t.* 904.

A very handsome tropical African Melastomaceous plant, which we believe to be identical with the *Melastoma corymbosum* of Sims, l. c.; but there being no analysis of flowers there, and the fact of its now constituting a distinct genus, are circumstances which may justify us in giving a more perfect figure and description. It is a stove-plant, and has been sent to us by the late Mr. Barter, Government Botanist in the last Niger Expedition, under Commander Baikie.

Descr. Our living plant has attained a height of five feet, moderately branched, the *branches* terete, the young ones herbaceous, all of them glabrous. *Leaves* large and handsome, five to six inches long (on *petioles* two to three inches long), cordate-ovate, shortly acuminate, glabrous, seven- to nine-nerved, rich satiny green, paler beneath, the margins sharply dentate-serrate. *Corymbs* terminal, branching, spreading; *pedicels* thickened. *Calyx* suburceolate, five-lobed, *lobes* thick, ovate-triangular,

purple, ciliated at the apex. *Ovary* five-celled, crowned just within the mouth of the calyx with five large emarginate *scales*, ciliato-dentate at the edge. *Petals* rather large, bright purple, oval, paler beneath. *Stamens* ten, alternately smaller. *Filaments* of the larger ones branched, with the lesser branch short, and sub-four-lobed: simple in the smaller ones, and bearing a sterile linear *anther*. *Anther* of the fertile stamen linear-acuminate, with one pore at the extremity. *Style* filiform. *Stigma* obtuse.

Fig. 1. Petal. 2. Sterile and fertile stamens. 3. Calyx, including the pistil. 4. Portion of the calyx removed, showing the epigynous scales. 5. Transverse section of an ovary:—*magnified.*

2.

W Fitch, del et lith.

Vincent Brooks, Imp

Tab. 5474.

LINUM Macraei.

Macrae's Linum.

Nat. Ord. Lineæ (Tribe Eulineæ).—Pentandria Pentagynia.

Gen. Char. Sepala quinque, integra. *Petala* 5, contorta, fugacia. *Stamina* basi coalita, hypogyna, antherifera 5, petalis alterna, staminodiis totidem minutis vel setiformibus interjectis. *Glandulæ* 5, parvæ, tubo stamineo extus adnatæ, petalis oppositæ. *Ovarium* 5-loculare, loculis biovulatis, spurie subbilocellatis; *styli* 5, liberi v. rarius plus minus coaliti, *stigmatibus* capitatis oblongis v. linearibus. *Capsula* septicide 5-valvis, 5-locularis, *loculis* imperfecte septatis, dispermis v. septo perfecto fissili 10-cocca, *coccis* monospermis. *Seminum albumen* parcum; *embryo* rectus.—Herbæ *nonnunquam suffrutescentes, glabræ v. rarius pubescentes.* Stipulæ 0 *v. glanduliformes.* Folia *alterna v. rarissime opposita, angusta, integerrima,* 1–∞ *-nervia.* Flores *in* racemos *terminales v. axillares, nunc laxe racemoso-subcymæformes, nunc in* capitula *spicas v. fasciculos contractos dispositi, flavi, cærulei v. rarius sanguinei v. albi. Benth. et Hook.*

Linum *Macraei;* glabrum, caulibus adscendentibus basi lignescentibus, ramis erectis alternis fasciculatis, foliis lanceolatis basi eglandulosis acutissimis, inferioribus suboppositis, superioribus alternis, floribus copiosis subcorymboso-paniculatis aureis, stylis infra basin liberis, stigmatibus capitatis, capsulis acute mucronatis.

Linum Macraei. *Benth. in Bot. Reg. sub* 1326.

About eighty species of the genus *Linum* are considered by Messrs. Bentham and Hooker to inhabit the temperate and extratropical region of the two hemispheres; but it must be confessed that many of them are difficult of determination, and are probably liable to considerable variation; of these, four are described as natives of Chili, in Claude Gay's 'Flora Chilensis,' but that author has omitted to notice the *L. Chamissonis* of Schlechtendal, in Linnæa, for 1826. Our present species is also a native of Chili, having been detected at Lota by Mr. Pearce, collector for the Messrs. Veitch; and it was, we believe, exhibited at one of the Horticultural Society's exhibitions, under that name in July of the present year; but on further examination it proves to be the *L. Macraei* of Mr. Bentham, perhaps the most floribund and the most showy of all the species of the genus. That author justly remarks that the flowers are of the

same size as those of *L. maritimum* or *L. tenuifolium*, and that in habit the plant resembles the *L. Africanum*, from which it differs chiefly in the shorter leaves, less frequently opposite, and by the conformation of the styles. Mr. Macrae gathered it at Valparaiso. This species also is omitted by M. Claude Gay.

Fig. 1. Calyx and pistil. 2. Pistil, separate from the calyx :—*magnified.*

3.

2.

6.

4.

5.

W.Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5475.

RENANTHERA Lowii.

Mr. Low's Renanthera.

Nat. Ord. Orchidaceæ.—Gynandria Diandria.

Gen. Char. (*Vide supra*, Tab. 2997–2998.)

Renanthera *Lowii;* caulibus robustis subramosis altissime scandentibus, foliis coriaceis ligulatis retusis, spicis simplicibus longissimis pendulis flaccidis multifloris, floribus heterogeneis, sepalis petalisque sæpius lanceolatis undulatis acutis sed in floribus (duobus) versus basin spicæ sitis sepalis petalisque carnosis obtusis.

Renanthera Lowii. *Reichenb. Xenia, p.* 89.
Vanda Lowii. *Lindl. Gard. Chron.* 1847, *p.* 239.

A more remarkable plant than the subject of the present Plate is not to be found among the vast and varied tribe to which it belongs. While in stateliness of habit and in the length of its flower-spikes it stands quite unrivalled among the Orchids of the Eastern world, its greatest peculiarity is to be found in the constant occurrence of *two entirely distinct forms of flower on the same spike*. This extraordinary circumstance was first observed by Professor Reichenbach, who satisfied himself, after a careful examination of fresh specimens furnished from M. Reichenheim's garden, that the strange phenomena had nothing to do with the separate production of male or female blossoms, since the organs in either form were equally perfect. Neither is this strange dimorphism to be classed with such fantastic changes as have been observed in *Cycnoches*, *Catasetum*, and the like, of which sundry examples are given in the 'Botanical Register' and the 'Orchidaceæ of Mexico and Guatemala.' In those instances certain alien forms were associated with flowers of the normal type, but they appeared capriciously, and might be regarded as a sort of monstrous birth. In the present case, however, nothing can be set down to caprice, for that singular pair of tawny flowers is found, as represented in the Plate, at the base of every spike!

This wonderful Orchid is a native of Borneo, whence it was originaily sent to the late Mr. Low, of the Clapton Nursery, by

his son (Colonial Treasurer at Labuan), in whose honour the species was named by Dr. Lindley. It has also been imported by Messrs. Veitch, in whose Nursery at Chelsea I first had the pleasure of seeing the plant in bloom. It was not however until the autumn of the year 1862, when the species flowered in Mr. Rucker's collection (where our drawing was made), that any adequate idea could be formed of its beauty. A full account was published in the 'Gardeners' Chronicle' at that time, which would apply equally to Mr. Rucker's plant as it might have been seen in September last, when it again burst into flower, and if possible in greater beauty, and profusion than before.

I gather from a memorandum received from Mr. Pilcher, Mr. Rucker's gardener, that the Wandsworth plant is already nine feet high, and that it produced six spikes, each bearing from forty to fifty flowers, which lasted in perfection for a month. The spikes attained to such an extraordinary length that they had to be supported on props, and thus formed graceful festoons, under which a person might walk! The plant requires the heat of the East Indian house, and grows so freely that it seems almost to chafe at the comparatively narrow scope which the low roofs of modern Orchid-houses afford it.

Dr. Lindley, who had only seen the specimens originally sent from Borneo, referred our plant to *Vanda*, but Reichenbach, who more recently had the advantage of examining living flowers, is decidedly of opinion that it falls more properly under the genus *Renanthera;* and as in this case I quite concur in the view of the German Professor, I have not hesitated to substitute the name of *Renanthera* for that of *Vanda Lowii*.—*J. B.*

Descr. *Stems* caulescent, an inch thick, climbing to a great height, and bearing numerous leathery strap-shaped obliquely-obtuse *leaves* eighteen inches to three feet long. *Flower-spikes* hanging down, issuing from the upper portions of the stems, slightly hairy, attaining the length of from six to twelve feet, and bearing from thirty to fifty flowers. *Flowers* of two kinds on the same spike, the lowest pair being always of a tawny-yellow colour enlivened with crimson dots, while the remainder are of a pale-green, almost hidden on the inner side by large irregular blotches of reddish-brown. On the ordinary flowers the *sepals* and *petals* are waved lanceolate and acute, but on the lower pair they are shorter and blunter and more fleshy. *Lip* less than half the length of the sepals, very fleshy, ovate, beaked with a small horn in front and five parallel ridges along the disk of the interior. *Column* very short and blunt.

Fig. 1. Reduced view of plant in flower. 2. Leaf,—*nat. size.* 3. Portion of flower-spikes, ditto. 4. Side view of lip and column. 5. Front view of ditto. 6. Pollen-masses:—*magnified.*

W Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5476.

MASDEVALLIA civilis.

Tufted Masdevallia.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. *Perigonii foliola exteriora* in tubum connata, apice libero longe lingulata; *interiora* libera, nana. *Labellum* cum *columna* articulatum, sessile, oblongum, concavum, nanum. *Columna* incurva, semiteres. *Anthera* bilocularis, terminalis, opercularis. *Pollinia* 2, integra, caudiculis duabus filiformibus, elastice replicatis, *glandulæ* conicæ affixa.—Herbæ *Peruanæ*, *epiphytæ;* rhizomate *parvo repente;* foliis *oblongo-lanceolatis, basi in petiolum angustatis;* scapis *radicalibus unifloris;* floribus *majusculis. Endl.*

Masdevallia *civilis;* caulibus dense cæspitosis teretibus vaginatis unifoliatis, folio lineari-oblongo acuto basi sensim attenuato, pedunculis brevibus radicalibus unifloris, sepalis in tubum amplum inferne gibboso-calcaratum, apicibus longe subulatis subrecurvis, petalis oblique oblongo-spathulatis labelli longitudine erectis, labello ad basin columnæ decurrentis articulato erecto oblongo parum concavo carnoso medio lineis duabus versus apicem lineis tribus elevatis, dorso obtuse carinato, columnæ apice bialato alis inflexis.

Masdevallia civilis. *Reichenb. fil. et Warszew. in Bonpl. v. 2. p.* 115, *et in Walp. Ann. Bot. Syst. v.* 6. *p.* 190.

Of the singular genus *Masdevallia*, to which this pretty Orchideous plant belongs, very few species are yet figured, compared to what are at present known in books. One kind alone was known to the authors of the genus, Ruiz and Pavon; three only to Dr. Lindley at the time his 'Genera and Species of Orchideous Plants' appeared; while thirty-six are now recorded by Reichenbach fil. in Walpers' 'Annales Botanices Systematicæ.' We owe the present species, which was discovered by Warszewicz in Peru, to the kindness of Mr. Schiller, of Hamburg, and who sent it to us as the *M. civilis*, Reich. fil. All that are known of the genus are of the New World. The only one yet figured in the 'Botanical Magazine' is the *M. fenestrata* at our Tab. 4164, where the sepals, besides being combined at the base into a tube, are united at the apex also, so as to leave a loophole as it were above the middle of the flower.

November 1st, 1864.

Descr. The *stems* (rather than *pseudobulbs*) are short, about two to three inches long, densely clustered, sheathed with scales, and each terminated by a fleshy *leaf* five to six inches long, linear-oblong, subacute, carinated at the back. *Peduncles* or *scapes* radical, one to one and a half inch long, sheathed with *bracts*. The solitary *flower* is set on to the peduncle obliquely by the short subturbinate *ovary*. *Flower* moderately large. *Sepals* yellow, brownish at the base, internally deep purple at the base, and spotted upwards with the same colour, greenish at the spreading apices; these sepals are united in the lower half into a tube rather longer than broad, very gibbous at the lower base, so as to form a blunt *spur;* the *segments* or *free lobes* are subulate and moderately spreading. *Petals* small, white, spathulate, acute, the sides unequal, erect, and parallel with the column. *Labellum* jointed on to the base of the produced column and closely applied to it, oblong, mottled and dotted with dark purple. *Column* white, equal in height with the petals, winged upwards, the wings incurved towards the stigma. *Anther-case* small.

Fig. 1. Section of a flower, with the peduncle. 2. Column, with petals and lip in their natural position. 3. The same, with the lip forced back, to show the column and petals more distinctly:—*magnified.*

W. Fitch, del et lith.

Vincent Brooks, Imp

AQUILEGIA cærulea.

Long-spurred Californian Columbine.

Nat. Ord. Ranunculaceæ.—Polyandria Pentagynia.

Gen. Char. Calyx coloratus, pentaphyllus, æqualis, *foliolis* æstivatione imbricatis, deciduis. *Corollæ petala* 5, hypogyna, bilabiata, hiantia, labio exteriore maximo plano, inferiore minimo, deorsum in *calcar* cavum, apice callosum, inter calycis foliola exsertum producta. *Stamina* plurima, hypogyna, in phalanges 5–10 disposita, intima abortiva, membranaceo-squamæformia. *Ovaria* 5, libera, unilocularia, *ovulis* ad suturam ventralem plurimis biseriatis. *Capsulæ* membranaceæ, conniventes, stylis rostratæ, intus longitudinaliter dehiscentes, polyspermæ. *Semina* oblique ovata, nitida.—Herbæ *in montibus Europæ et Asiæ, in America boreali raræ, erectæ ut plurimum ramosæ;* foliis *biternatis, radicalibus vel caulinis, inferioribus longe petiolatis;* floribus *terminalibus solitariis, cæruleis, roseis, purpureis, albis vel interdum sordide flavis. Endl.*

Aquilegia *cærulea;* foliis radicalibus biternatis subtus præcipue glaucis, foliolis late cuneatis lobatis, calcaribus rectiusculis gracilibus limbo cuneato subduplo longioribus, sepalis rhombeo-lanceolatis.

Aquilegia cærulea. *James, in Long's Exped. to the Rocky Mountains, v.* 2. *p.* 204 *et p.* 345 (*Engl. ed.*). *Torr. in Rocky Mount. Pl. p.* 164. *Torr. et Grev. Fl. N. Am. v.* 1. *p.* 30. *Walpers, Repert. Bot. v.* 1. *p.* 51.

Aquilegia macrantha. *Hook. et Arn. Bot. of Beech. Voy. p.* 317. *t.* 72.

Var. *ochroleuca;* floribus ochroleucis. (Tab. Nostr. 5477.)

Aquilegia leptoceras. *Nutt. in Journ. Acad. Philad. v.* 7. *p.* 8 (*not Fisch. et Mey.*). *Hook. Bot. Mag. t.* 4407.

We are glad to have an opportunity of figuring a very handsome variety, that is the *blue*-flowered (and we presume the normal-coloured) variety of a fine Rocky Mountain Columbine, already given in our Vol. XXIV. Tab. 407, under the name of *Aquilegia leptoceras*, and still more glad to be able to correct an error into which we have fallen, by restoring the original name of Mr. James (in Long's 'Travels in the Rocky Mountains,' l.c.) namely, that now accepted. Our first acquaintance with the living plant showed us that the flowers were white or cream-coloured, and we considered Nuttall's name most expressive. The name

A. leptoceras we also find to have been given previously to another, and Siberian, species. We have now reason to know that, like our own *A. vulgaris*, the flowers are liable to vary in colour, and unquestionably the present variety is far more worthy a place in our gardens than that given before. It was this variety which led James to say, "It forms a splendid addition to the Flora of the United States;" and our collector, Mr. Burke, who detected it about Fort Hall, remarks: "We have here a most beautiful Columbine, which I have never found elsewhere, growing at the foot of a hill in rich loamy soil in great abundance; the flowers very large, beautifully white, variously tinged above with light blue. In my opinion it is not only the Queen of Columbines, but the most beautiful of all herbaceous plants."

Fig. Ovaries,—*magnified*.

W. Fitch, del et lith.

Vincent Brooks, Imp.

Tab. 5478.

MIMULUS luteus, var. *cuprea*.

Yellow Monkey-flower, copper-coloured var.

Nat. Ord. Scrophularineæ.—Didynamia Angiospermia.

Gen. Char. (*Vide supra*, Tab. 5423.)

Mimulus *luteus;* glaber vel viscido-puberulus, caule adscendente v. erecto, foliis plerisque eroso-dentatis orbiculatis ovatis suboblongisve inferioribus longe petiolatis sublyratis, superioribus sessilibus vel cordato-amplexicaulibus plurinervibus, pedunculis folio longioribus, calycibus ovatis fructiferis inflatis, dentibus ovatis supremo maximo, corollæ amplæ tubo calyce duplo saltem longiore. *Benth.*

Mimulus luteus. *Linn. Sp. Pl. p.* 884; *Bot. Mag. t.* 1501, 3386, *et* 3363; *Bot. Reg. t.* 1080 *et* 1796. *Andr. Bot. Repos. t.* 61. *Jacq. fil. Eclog. v.* 1. *t.* 92. *Benth. in De Cand. Prodr. v.* 10. *p.* 370.

Mimulus guttatus. *De Cand. Cat. Hort. Monsp. p.* 127. *Reichenb. Ic. Pl. Cult. t.* 204.

Mimulus variegatus. *Lodd. Bot. Cab. t.* 1872.

Mimulus rivularis. *Nutt. Journ. Acad. Philad. v.* 7. *p.* 47. *Lodd. Bot. Cab. t.* 1575.

Mimulus lyratus. *Benth. Scroph. Ind. p.* 28 *in adnot.*

Mimulus Smithii. *Lind. Bot. Reg. t.* 1674.

Var. *cuprea;* nana cæspitosa glabra, foliis subrhombeo-ovatis, floribus primum luteis demum cupreis. (Tab. Nostr. 5478.)

Mimulus cupreus. *Veitch, in Gard. Chron.* 1864. *p.* 2. *Regel, Gart. Fl.* 1864. *t.* 422.

We received a flowering plant of this from Messrs. Veitch, of the Royal Exotic Nursery, King's Road, Chelsea, in August of the present year, under the name of *Mimulus cupreus*. It had been sent to Messrs. Veitch by their collector, Mr. Pearce, from the Chilian Andes, at an elevation of six to seven thousand feet above the sea-level. Pretty as is this plant in its dwarf and compact habit, and in the varying colour of its flowers,—from a fulvous-yellow in the newly-expanded blossoms to a rather bright copper-colour before they fade,—we are nevertheless satisfied it

is only one of the many varieties of the Linnæan *Mimulus luteus*, of which species our Herbarium possesses copious specimens from the Pacific side of South and North America (often extending far inland on the mountains), through the whole of the cold and temperate regions of South America, commencing in the Andes of Maule Province in the south, avoiding the tropics, as far as we know, of Peru and Ecuador, but appearing again in Mexico (Orizaba, etc.) and California, and thence extending north through all British Columbia and the islands, to the Russian possessions of Sitka and Unalaskha. It seems to have attained its maximum about the 49th parallel of north latitude, whence Dr. Lyall collected numerous specimens, many quite resembling the Chilian form here represented.

Fig. 1. Calyx. 2. Pistil:—*magnified*.

W.Fitch, del. et lith.

Vincent Brooks, Imp

Tab. 5479.

VITIS macropus.

Gouty-stemmed Vine.

Nat. Ord. Ampelideæ.—Tetrandria Monogynia.

Gen. Char. (*Vide supra*, Tab. 5472.)

Vitis *macropus;* succulenta glauca, trunco ovato carnoso napiformi, ramis brevibus erectis simplicibus herbaceis ecirrhosis, foliis 5-foliolatis (infimo trifoliolato), foliolis ovato-ellipticis breviuscule petiolatis, junioribus præcipue albo-tomentosis undulato-plicatisque, stipulis binis oppositis lato-lanceolatis, floribus cymosis, petalis cohærentibus calyptriformibus.

Cissus macropus. *Welw. in Journ. Proceed. of Linn. Soc. v.* 8. *p.* 77.

At our Tab. 5472 of this volume we gave a figure and description of a very remarkable gouty-stemmed *Vine* of tropical Western Africa (*V. Bainesii*), accompanied by some interesting extracts from a recent account of Dr. Welwitsch of another and nearly allied species found by that gentleman, the *Vitis* (or *Cissus*, Welw.) *macropus*. Of this, which has also flowered at Kew, we now offer a figure, and the description we shall translate from the able author's own words. We received the plant from Dr. Welwitsch, who introduced the plant to the gardens at Lisbon, where, as with us, it flowered in April and May, a season which corresponds with the autumn in its native country, South Benguela. It there grows in brackish (*subsalsis*) rocky plains of the Serra dos Montes Negros, near Mossamedes, also in dry mountains of Giraul towards the east, at an elevation of four to six hundred feet above the sea-level.

Descr. A dwarf *tree*, one to two and a half feet high, quite succulent. The *trunk* forms a large ovato-conical *bulb* towards the apex, bi–tribrachiate, covered with a smooth herbaceous-green *bark* and a whitish-brown pergamentaceous *epidermis*, which separates from the bark in lamellæ as in the Birch-tree. *Root* consisting of long cylindrical subsimple *fibres*. *Branches* short, half to a foot and a half long, two to four inches thick, towards their apices dividing abruptly into *branchlets* producing

leaves and flowers, but no *tendrils* have been hitherto seen. *Branchlets* indistinctly striated and very patent, and, as well as the leaves and petioles while young, clothed with white arachnoid hairs, at length subglabrous, of the thickness of a finger, and, like the entire plant, abounding in aqueous juice. *Leaves* (at first plicate and albo-tomentose) long-petiolate, the lowest one on the branch tri-, the rest quinquefoliate. *Leaflets* ovate-elliptical or obovate, shortly petiolulate, unequally toothed, arachnoid-pubescent on both sides, the terminal one longer, petiolulate, four to five inches long, the lowest pair inequilateral at the base, the rest more or less cordate. *Stipules* two, at the base of the petiole, opposite, broad lanceolate, acuminate, deciduous. *Peduncles*, or by abortion terminal, about equal in length with the petioles, slightly striated, patent, slenderer than the petioles, dichotomo-ramulose, the *branchlets* obliquely erect, forming a broadish *corymb*. *Flowers* tetramerous, yellowish-green, rather small. *Calyx* very short, obsoletely dentate, the teeth sometimes scarcely distinguishable. *Corolla* of four petals, induplicate-valvate. *Petals* fleshy, induplicate at the apex, cohering by pairs, calyptrate, deciduous, very cucullate at the apex, white, fugacious. *Disk* much developed, consisting of four columnar teeth, quite distinct from each other, obliquely truncate at the apex, aurantiaco-glandulose, enlarged after the flowering. *Stamens* four. *Anthers* obovate, incumbent, yellow. *Ovary* ovate or ovate-conical, longer than the tubercles of the disk, two-celled. *Style*, when flowering, as long as the stamens, firm, straight, terminated by a simple (not capitate!) *stigma*. *Fruit*, which I have not seen, said to be a berry, the size of a pea, reddish-violet.—*Welwitsch, l. c.*

Fig. 1. A *very reduced figure* of a flowering plant. 2. Upper part of a flowering branch with young leaf,—*natural size*. 3. Fully-developed leaf,—*natural size*. 4. Flower-bud and fully-developed flower. 5. Ovary, with its four large glands at the base. 6. Calyptrate state of the corolla:—*Figures* 4–6 *more or less magnified*.

3

2.

Tab. 5480.

ACMENA floribunda.

Copious-flowering Acmena.

Nat. Ord. Myrtaceæ.—Icosandria Monogynia.

Gen. Char. Calyx tubo turbinato, cum ovario connato, limbo supero truncato, juniore subinvoluto. *Corollæ petala* 5, calycis fauci inserta, minima, distantia, interdum nulla. *Stamina* plurima, calycis fauci inserta; *filamenta* filiformia, libera; *antheræ* biloculares, dorso insertæ, longitudinaliter dehiscentes. *Ovarium* inferum, triloculare. *Stylus* brevis, simplex; *stigma* obtusum. *Bacca* globosa v. ovalis, monosperma. *Semen* subrotundum, crassum. *Embryonis* exalbuminosi *cotyledones* conferruminatæ.—Frutex *glaberrimus, in Nova Hollandia orientali extratropica indigena;* foliis *exstipulatis, pellucido-punctatis, integerrimis;* cymis *trifloris, in* thyrsum *terminalem paniculatum dispositis;* floribus *albis. Endl.*

Acmena *floribunda;* foliis pellucido-punctatis ovali-lanceolatis utrinque acuminatis.

Acmena floribunda. *De Cand. Prodr. v.* 3. *p.* 262.

Metrosideros floribunda. *Sm. Trans. Linn. Soc. v.* 3. *p.* 267. *Vent. Malmais. t.* 75.

Angophora floribunda, *G. Don.*

β. *elliptica;* foliis ellipticis acuminatis, bacca alba. *De Cand. l. c.*

Eugenia elliptica. *Sm. l. c. p.* 281. *Sims, Bot. Mag. t.* 1872.

Eugenia Smithii. *Poir.*

Myrtus Smithii. *Spreng. Syst. Veget. v.* 2. *p.* 484.

However beautiful and striking this plant (native of New South Wales) may be, loaded, too, as our tree, above twenty feet high, is, with its charming clusters of bright purple berries, its flowers are quite unattractive, and perhaps amongst the smallest and inconspicuous of all the Myrtle tribe. These flowers appear, like those of many other Australian trees and shrubs, in the winter season, and the berries succeed them in the early spring, causing the extremities of the slender branches to bend down by their weight. The tree is too large, however, for successful cultivation in an ordinary greenhouse, but well suited to our winter garden. De Candolle, I think with justice, refers Sir James Smith's *Eugenia elliptica* to this species, con-

sidering it a variety with white berries and broader foliage, depending on the paler or almost white colour of the berries. This *Eugenia elliptica* is figured by Sims in the 'Botanical Magazine,' l. c.; but the figure does not do justice to the species, and is destitute of flowers, while, on the other hand, the fruit was unknown to Ventenat, who has well represented a flowering specimen.

Descr. A *tree* in our conservatory, attaining a height of twenty feet, and very much resembling a gigantic large-leaved Myrtle (*Myrtus communis*). *Leaves* very dark-green, two to three inches long, ovato-lanceolate, acuminate, pellucido-punctate, short-petioled. *Panicles* terminal, thyrsoid. *Flowers* very small. *Calyx* turbinate or subsemiglobose, with five very indistinct teeth. *Petals* quite minute, elliptical-cuneate, erect, much shorter than the numerous stamens. *Ovary* incorporated with the fleshy base of the calyx, which eventually becomes a globose, rich-purple subpellucid *berry*, the size of a large pea, umbilicated at the summit, of an acid flavour, but destitute of aroma.

Fig. 1. Flower. 2. The same, cut through vertically, showing the stamens and style. 3. Ovary, cut through transversely:—*magnified*

Tab. 5481.

ARAUJA angustifolia.

Narrow-leaved Arauja.

Nat. Ord. Asclepiadeæ.—Gynandria Pentandria.

Gen. Char. Sepala latiuscula, persistentia, accrescentia. *Corolla* campanulata, tubo inferne ventricoso, limbo 5-fido, lobis conniventibus v. reflexis. *Corona staminea* inclusa, subcoronæformis, 5-phylla; foliolis dorso corollæ tubo adnatis. *Gynostegium* sessile v. subsessile. *Antheræ* membrana terminatæ. *Pollinia* compresso-clavata, funiculis latiusculis. *Stigma* bifidum, laciniis hinc planis. *Ovula* plurima. *Folliculi* patentes, coriacco-rugosi. *Semina* carnosa.—Suffrutices *volubiles*, Americani. Folia *basi glandulifera*. Pedunculi *axillares v. extra-axillares*, 1-*pluriflori, floribus cymosis v. racemosis*. Corollæ *suaveolentes*. *Decne. in De Cand. Prodr.*—Physianthus, *Mart. et Zucc.* *Bot. Mag. t.* 3201.

Arauja *angustifolia;* glaberrima; caulibus gracilibus, foliis anguste lanceolato-hastatis v. e basi late auriculato anguste et longe lineari-subulato acuminata, medio albo-lineata, subtus glauca, auriculis transversis obtusissimis, pedunculis 1-floris, corolla cylindraceo-campanulata, lobis patenti-recurvis ovatis acutis.

Arauja angustifolia. *Decne. in De Cand. Prodr. v.* 8. *p.* 534.

Physianthus angustifolius. *Hook. et Arn. Journ. Bot.* 1834. *p.* 292.

Arauja Megapotamica. *Don, Gen. Syst. Gard. v.* 4. *p.* 149.

Physianthus Megapotamicus. *Spr. Syst. App.* 111.

A graceful, rather glaucous climber, of which seeds were received at the Royal Gardens from M. Gibert, of Montevideo, from whom also we have dried specimens collected near that town. The plant was discovered in the forests of Uruguay, by Tweedie, from whom we received the originally-described specimens, and others since then from Sir C. J. F. Bunbey, Bart., collected by the late Mr. Fox.

Descr. A slender, graceful climber, everywhere quite glabrous; the stems, branches, and leaves below more or less glaucous. *Leaves* one to one and a half inch long, variable in breadth, usually more or less halbert-shaped, consisting at the base of two broad, spreading, rounded, obtuse lobes, and a long, straight, narrow, acuminate, middle lobe, bright-green above,

with a broad white band down the middle; *petiole* half an inch long. *Peduncles* solitary, axillary, 1-flowered, curved or nodding, one and a half inch long, with a subulate bract in the middle. *Flowers* drooping, solitary, nearly an inch long. *Calyx-lobes* ovate-oblong, acute, increasing after flowering. *Corolla* cylindrico-campanulate, with spreading limb, tube whitish, externally marked with dull purple; lobes of limb ovate acute, greenish-yellow, with a dark-purple blotch at the base. *Column* included. *Stigmatic lobes* large, oblong, spreading or recurved.

Fig. 1. Young column. 2. Older ditto. 3. Wing of anther. 4. Pollinia: —*all magnified.*

3.

2

1

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5482.

DENDROBIUM Japonicum.

Japanese Dendrobium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. (*Vide supra*, Tab. 5303.)

Dendrobium *Japonicum;* caulibus gracilibus elongatis, foliis alternis membranaceis linearibus obtusiusculis, floribus lateralibus solitariis v. binis albis, bracteolis tumidis basin ovarii cingentibus, sepali dorsali lineari-oblongo, lateralibus oblongis acutis, petalis ovato- v. oblongo-lanceolatis acutis recurvis, labelli disco intus pubescente, limbo ovato-lanceolato acuminato recurvo glaberrimo.

Dendrobium Japonicum. *Lindl. Gen. et Sp. Orchid.* 89. *Reichenb. fil. in Annal. Bot. Syst. v.* 6. *p.* 294.

Onychium Japonicum. *Blume, Bijd.* 328.

Dendrobium castum. *Batem. ms.*

Although anything but a showy species of *Dendrobium*, the delicious fragrance of *D. Japonicum* at once recommends it for cultivation. It is probably common in Japan, having been sent to the Royal Gardens from Nagasaki by Sir Rutherford Alcock and by Mr. Hoey, and from the island of Tsu-sima, off the Corean coast, by Mr. Charles Wilford, collector for the Royal Gardens.

Our excellent friend Mr. Bateman, who is of opinion, from some slight discrepancies between Blume's brief character of his *Onychium* (Dendrobium, *Sw.*) *Japonicum* and our plant, that the two may not be identical, has suggested the appropriate name of *D. castrum* for it:—but as it is the only species of the genus we have ever received from Japan, and this from widely different localities, and from three different correspondents; it may, I think, be reasonably inferred that it is the *Japonicum* of Blume. Should it prove otherwise, the specific name of *castum* must be adopted.

Descr. *Stems* tufted, six to twelve inches long, slender, pen-

dulous, rather distantly jointed, attenuated downwards; articulations cylindrical, long, upper rather tumid, green, striated, the older purplish. *Leaves* alternate, one to two inches long, a quarter to one-third of an inch broad, spreading, recurved, linear or linear-lanceolate, obtuse, pale-green. *Flowers* on the naked stems, solitary or in pairs, one and a half inch in diameter, pure white, speckled with purple at the base of the lip and on its claw. *Bract* small, tumid, clasping the base of the ovary, which is slender, three-quarters to an inch long. *Sepals* nearly equal, dorsal oblong, acute, lateral, ovate, lanceolate, acuminate. *Petals* oblong, acute, rather broader than the sepals. *Lip* white, speckled with purple, and pubescent in the middle line above the limb; limb ovate-lanceolate, acuminate, subrecurved. *Column* very short.

Fig. 1. Ovary, base of lip, and column. 2. Front; and 3. Side view of lip: —*all magnified.*

1.

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5483.

BARTONIA NUDA.

Bractless Bartonia.

Nat. Ord. Loaseæ.—Icosandria Monogynia.

Gen. Char. Calyx tubo cylindrico, cum ovario connato, *limbi* superi quinquepartiti *lobis* æqualibus. *Corollæ petala* 10, summo calycis tubo inserta, plana, æqualia v. alterna, limbi lobis opposita, angustiora, apice antherifera. *Stamina* plurima, cum petalis inserta; *filamenta* filiformia, libera, *antheræ* biloculares, longitudinaliter dehiscentes. *Ovarium* inferum, uniloculare, *placentis* parietalibus tribus v. septem, nerviformibus. *Ovula* plurima, anatropa. *Stylus* simplex; *stigma* obtusum. *Capsula* cylindrica, *calycis* limbo coronata, unilocularis, vertice breviter exserto, tri–septem-valvis, *valvis* cum placentis nerviformibus alternantibus. *Semina* plurima, complanata, alata.—Herbæ *boreali-Americanæ*, pilis *rigidis barbatæ conspersæ, erectæ;* foliis *alternis, sessilibus, v. inciso-pinnatifidis;* floribus *terminalibus, solitariis, amplis, albis. Endl.*

Bartonia *nuda;* tota planta (petalis staminibus styloque exceptis) pilis minutis barbigeris aspera, caule erecto ramisque albis, foliis sessilibus lanceolatis obtusis pinnatifido-dentatis, floribus in ramulis terminalibus amplis pallide sulfureis decapetalis subebracteatis, calycis tubo infundibuliformi, limbo laciniis elongatis acuminatis reflexis, staminibus numerosis, filamentis non raro sterilibus petaloideis, stylo trifido, "capsula 3-valvi, seminibus numerosis alatis."

Bartonia nuda. *Nutt. Gen. Am. v.* 1. *p.* 297. *Pursh, Fl. Am. Sept. v.* 1. *p.* 328 *et* 2. *p.* 749. *De Cand. Prod. v.* 3. *p.* 339.

Mentzelia nuda. *Torr. et Gr. Fl. N. Am. v.* 1. *p.* 535.

We are glad to give a figure of this very rare plant, for a fine specimen of which we are indebted to Mr. Thompson, of Ipswich, who has recently introduced it to our gardens from the Missouri, where alone it appears to be found, and where it was discovered, and has been well described, by Nuttall. But, however handsome it looks on paper, Mr. Thompson, who has the credit of obtaining it for our gardens, candidly acknowledges that "it cannot be looked upon as a hardy ornamental plant; the flowering only takes place late in the evening, and at a season, October, when it is too late for the ripening of the seeds."

December 1st, 1864.

Bracts or floral leaves are not always absent; but they are much reduced in comparison to those of *B. ornata*, Nutt., for example, (*B. decapetala*, Sims in Bot. Mag. Tab. 1487).

Fig. 1. Calyx with two bracts and pistil, *magnified*.

1.

2.

W Fitch, del et lith.

Vincent Brooks, Imp.

Tab. 5484.

VERONICA Hulkeana.

Hulke's New Zealand Speedwell.

Nat. Ord. Scrophularineæ.—Diandria Monogynia.

Gen. Char. Calyx 4–5-partitus, rarissime 3-partitus. *Corollæ tubus* nunc brevissimus, nunc calycem superans; *limbus* 4-fidus, rarius 5-fidus, patens, *laciniis* lateralibus vel ima e lateralibus exterioribus sæpius angustioribus. *Stamina* 2, tubo inserta, exserta, ad latera laciniæ superioris sita. *Antherarum loculi* divergentes vel paralleli, apice confluentes. *Stylus* apice integer, subcapitato-stigmatosus. *Capsula* compressa v. turgida, bisulcata, *carpellis* dorso plus minus loculicide dehiscentibus, marginibus inflexis columnæ placentiferæ adhærentibus vel plus minus ab ea septicide solutis; vel capsula septicide cum columna placentifera bipartibilis. *Semina* ovata vel orbiculata, facie interna plana vel concava affixa, dorso plus minus convexa, lævia vel rugulosa. *Albumen* sæpius oblongum, circumdatum testa incrassato-cartilaginea alæformi vel calloso-marginante. *Embryo* rectus; *radicula* ad apicem fructus spectans in speciebus oligospermis, ab hilo parum remota in polyspermis.—Herbæ, frutices *vel rarius* arbores *in temperatis frigidioribusque utriusque orbis crescentes, inter tropicos perpaucæ nec in America numerosæ.* Folia *caulina opposita vel rarius verticillata aut sparsa, in una tantum specie pleraque alterna,* floralia *semper alterna, sæpissime bracteæformia, rarius caulinis conformia.* Flores *in* racemos *terminales vel axillares dispositi, in axillis bractearum solitarii, vel rarius* bracteis *foliis caulinis subconformibus axillares, solitarii.* Calycis segmentum *posticum dum adest sæpissime cæteris minus.* Corolla *cærulea carnea vel alba, in iisdem speciebus sæpe colore variabilis, normalis* 4-*fida,* laciniis *integerrimis interdum (rarissime tamen in omnibus floribus ejusdem speciei) lacinia suprema vel infima emarginata vel infima (an etiam suprema?) bipartita vel etiam tripartita. In iisdem floribus stamina occurrunt interdum* 3–4. Capsula *sæpissime obtusa vel emarginata, in paucis speciebus acuta vel acuminata. Benth.*

Veronica *Hulkeana;* frutex gracilis, erectus, parce foliosus, 1–3-pedalis, caule subsimplici terete supra puberulo, foliis oppositis distantibus 1–1½ unc. longis, oblongo-ovatis (v. ellipticis) obtusis acutisve, obtuse vel acute grosse serratis subcoriaceis, petiolo ¼–¾ unciam longo, spicis patentibus puberulis glandulosisque in paniculas longas terminales 4–10 unc. longas 2–4 unc. latas opposite ramosas dispositis, floribus sessilibus, bracteis late ovatis, obtusis $\frac{1}{16}$ unc. longis, fere longitudine sepalorum similium sed latiorum, corolla ¼ unc. lata, lilacina, tubo perbrevi, staminibus brevibus, capsula parva, oblonga, obtusa, sepalis duplo longiore. *Hook. fil.*

Veronica Hulkeana. *F. Muell. in Hook. fil. Handb. of N. Zeal. Fl. v.* 1. *p.* 213.

This is quite a new form of *Veronica* for our European gardens, for which we are indebted to the indefatigable Dr. Mueller,

December 1st, 1864.

who sent the seeds under the name we have preserved, as a native of New Zealand, where it has been found in the Middle Island we believe only, on the Wairu Mountains, alt. 1500–2000 feet, by Mr. Travers at Macrae's Run, halfway up, in rocky places by Dr. Munro, and by the late lamented Dr. Sinclair in the Kaikoras Mountains. It first flowered with us in May, 1864, in a cool greenhouse, but from its elevation in the Middle Island of New Zealand, it ought to prove quite hardy in our climate. It is one of the many additions made to the genus *Veronica* since the enumeration of the one hundred and fifty-eight species in De Candolle's 'Prodromus,' by Mr. Bentham, and it is one of the forty species described by Dr. Hooker in his recently published 'Handbook of the New Zealand Flora.' Both the genus and the species of *Veronica* are very difficult of clear definition. Some admirable remarks on the former (the genus) we have given above, following the Gen. Char.; and Dr. Hooker observes, of the *New Zealand* species, that "they form a more conspicuous feature of the vegetation than in any other country, both from their number, beauty, and ubiquity, from so many forming large bushes, and from the remarkable forms the genus presents."

Fig. 1. Front view of a flower. 2. Side view of ditto:—*magnified.*

2.

3

W. Fitch, del. et lith.

Vincent Brooks, Imp.

Tab. 5485.

EPISTEPHIUM Williamsii.

Mr. Williams's Epistephium.

Nat. Ord. Orchideæ.—Gynandria Monandria.

Gen. Char. Perianthium basi urceolo dentato cinctum. *Sepala* patentia v. reflexa, libera, lateralia labello supposita. *Petala* latiora v. angustiora. *Labellum* sessile, liberum, indivisum, circa columnam convolutum, disco barbatum v. cristatum. *Columna* semiteres, marginata, infra stigma 2-tuberculata, apice membranacea, dilatata, 3-fida, lobo medio cucullato antherifero. *Anthera* terminalis, persistens, loculis approximatis ½-quadrilocularibus. *Pollinia* 4, compressa, basi retroplicata.—Herbæ *Americæ æquinoctialis, terrestres.* Folia *nervosa, evaginata.* Flores *magni, conspicui. Lindl. Gen. et Sp. Orchid.* 432.

Epistephium *Williamsii;* foliis lineari-oblongis acutis ½-amplexicaulibus, marginibus recurvis valde coriaceis lævibus nitidis, nervis parallelis non reticulatis, sepalis lineari-oblongis acutis, petalis oblongis sepalis latioribus, labelli lobo terminali suborbiculato 2-fido marginibus crenulatis, disco medio longe cristato.

Epistephium Williamsii. *Hook. fil. ms.*

A very curious and most beautiful plant, for the introduction of which we are indebted to our valued correspondent C. H. Williams, Esq., of Bahia. It undoubtedly belongs to the genus *Epistephium*, which inhabits the tropics of South America, and is distinguished from its very near congener *Sobralia*, by the toothed calyculus crowning the ovary. The genus is described as having strongly reticulated nerves on the leaf, but this is perhaps best seen in the dried plant; the leaves of our species are very coriaceous, glossy, and almost nerveless; nothing can exceed their brilliant, glossy green surface.

Descr. *Stems* from an underground root of tufted, fleshy fibres, several together, stiff, a foot to eighteen inches high, cylindrical. *Leaves* alternate on the upper part of the stem, three to four inches long, linear-oblong, semi-amplexicaul, acute, very glossy-green, nerves very indistinct, not reticulated. *Flowers* five to eight, in a terminal spike, three inches in diameter, of a fine light red-purple colour. *Bracts* small, ovate, acute. *Ovary*

one inch long. *Calyculus* very short, shortly six-toothed. *Sepals* one to one and a quarter inch long, linear-oblong, the dorsal a little obovate. *Petals* as long, but much broader. *Lip* with the middle lobe bifid, margins somewhat undulate, of the same colour as the petals, but with two whitish areas on the disk, which are surrounded with a deeper purple; crest of hairs on the disk small, long, yellowish. *Column* with narrow wings. *Stigma* with its edges crenulate. *J. D. H.*

Fig. 1. Upper part of ovary, calyculus, and lip. 2. Base of lip and column. 3. Upper part of column, showing the stigma and anther:—*all magnified.*

INDEX,

In which the English Names of the Plants contained in the Twentieth Volume of the THIRD SERIES (or Ninetieth Volume of the Work) are alphabetically arranged.

Plate.

5480 Acmene, copious-flowering.
5435 Ada, deep orange-flowered.
5447 Æchmea, distichous-flowered.
5442 Alstrœmeria, Caldas's.
5473 Amphiblemma, cymose.
5463 Aphelandra, Libon's.
5481 Arauja, narrow-leaved.
5420 Aristolochia, pale-veined tree.
5483 Bartonia, bractless.
5434 Begonia, Mr. Mann's.
5424 Borodina or Cannibal's Solanum.
5429 Canscora, Parish's.
5449 Cattleya, Dr. Lindley's.
5462 Cœlogyne, honey-scented.
5477 Columbine, long-spurred Californian.
5427 Corn-flag, shaggy-stemmed.
5458 Corylopsis, spiked.
5471 Cyanotis, nodose-flowered.
5457 Cymbidium, spotted-lipped.
5444 Dendrobium, bearded-lipped.
5451 Dendrobium, Mr. Farmer's golden-yellow var.
5430 Dendrobium, fringed-lipped.
5446 Dendrobium, funnel-lipped.
5459 Dendrobium, ivory-flowered.
5482 Dendrobium, Japanese.
5470 Dendrobium, knotted-stemmed.
5441 Dendrobium, pale yellowish-flowered.
5454 Dendrobium, white-margined.
5452 Desmodium, Mr. Skinner's white-lined var.
5445 Echinocactus, Broom.
5485 Epistephium, Mr. Williams's.
5467 Eranthemum, Sir D. Cooper's.

Plate.

5440 Eranthemum, crenulate-leaved, large-flowered var.
5425 Forrestia, hairy-sheathed.
5468 Genethyllis, Thyme-leaved.
5431 Helichrysum, Mr. Mann's.
5426 Ipomœa, slender-stalked.
5460 Kalanchoe, large-flowered.
5466 Lady's-slipper, sedge-like.
5461 Larkspur, Mr. Brown's Musk.
5474 Linum, Macrae's.
5465 Macleania, showy.
5453 Macleania, splendid.
5476 Masdevallia, tufted.
5456 Meconopsis, prickly.
5455 Micranthella, De Candolle's.
5436 Miltonia, Regnell's.
5423 Monkey-flower, creeping.
5478 Monkey-flower, yellow, copper-coloured var.
5421 Pelargonium, Mr. Bowker's.
5432 Quamoclit, Mr. Nation's.
5437 Reidia, glaucescent.
5475 Renanthera, Mr. Low's.
5433 Saccolabium, Mr. Harrison's.
5422 Schizostylis, crimson.
5439 Scutellaria, Costa Rica.
5484 Speedwell, Hulke's New Zealand.
5450 Thibaudia, fleshy-flowered.
5469 Thladiantha, dubious.
5428 Trichanthæ, smaller-leaved.
5448 Trichinium, Mr. Mangles's.
5464 Urceolina, drooping.
5438 Vieussieuxia, fugacious.
5472 Vine, Baines's gouty.
5479 Vine, gouty-stemmed.
5443 Waitzia, corymbose.

INDEX,

In which the Latin Names of the Plants contained in the Twentieth Volume of the THIRD SERIES (or Ninetieth Volume of the Work) are alphabetically arranged.

Plate.

5480 Acmene floribunda.
5435 Ada aurantiaca.
5447 Æchmea distichantha.
5442 Alstrœmeria Caldusii.
5473 Amphiblemma cymosum.
5463 Aphelandra Liboniana.
5477 Aquilegia cærulea.
5481 Arauja angustifolia.
5420 Aristolochia leuconeura.
5483 Bartonia nuda.
5434 Begonia Mannii.
5429 Canscora Parishii.
5449 Cattleya Lindleyana.
5462 Cœlogyne odoratissima.
5458 Corylopsis spicata.
5471 Cyanotis nodiflora.
5457 Cymbidium tigrinum.
5466 Cypripedium caricinum.
5461 Delphinium Brunonianum.
5444 Dendrobium barbatulum.
5430 Dendrobium ciliatum.
5459 Dendrobium eburneum.
5451 Dendrobium Farmeri, var. aureo-flava.
5446 Dendrobium infundibulum.
5482 Dendrobium Japonicum.
5441 Dendrobium luteolum.
5454 Dendrobium marginatum.
5470 Dendrobium nodatum.
5452 Desmodium Skinneri, var. albo-lineata.
5445 Echinocactus Scopa.
5485 Epistephium Williamsii.
5440 Eranthemum crenulatum, var. grandiflora.

Plate.

5467 Eranthemum Cooperi.
5425 Forrestia hispida.
5468 Genethyllis fimbriata.
5427 Gladiolus sericeo-villosus,
5431 Helichrysum Mannii.
5426 Ipomœa filicaulis.
5460 Kalanchoe grandiflora.
5474 Linum Macræi.
5465 Macleania pulchra.
5453 Macleania speciosissima.
5476 Masdevallia civilis.
5456 Meconopsis aculeata.
5455 Micranthella Candollei.
5436 Miltonia Regnelli.
5478 Mimulus luteus, var. cuprea.
5423 Mimulus repens.
5421 Pelargonium Bowkeri.
5432 Quamoclit Nationis.
5437 Reidia glaucescens.
5475 Renanthera Lowii.
5433 Saccolabium Harrisonianum.
5422 Schizostylis coccinea.
5439 Scutellaria Costaricana.
5424 Solanum anthropophagorum.
5450 Thibaudia sarcantha.
5469 Thladiantha dubia.
5428 Trichantha minor.
5448 Trichinium Manglesii.
5464 Urceolina pendula.
5484 Veronica Hulkeana.
5438 Vieussieuxia fugax.
5472 Vitis Bainesii.
5479 Vitis macropus.
5443 Waitzia corymbosa.